

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
14 March 2002 (14.03.2002)

PCT

(10) International Publication Number
WO 02/20804 A1

(51) International Patent Classification⁷: C12N 15/57,
C07K 1/14, A61P 11/00, C12Q 1/68, C07K 14/435, A61P
31/00

(21) International Application Number: PCT/DK01/00580

(22) International Filing Date:
6 September 2001 (06.09.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
PA 2000 01343 8 September 2000 (08.09.2000) DK
60/247,584 9 November 2000 (09.11.2000) US

(71) Applicant (for all designated States except US):
PROZYMEX A/S [DK/DK]; Dr. Neergaards Vej 17,
DK-2970 Hørsholm (DK).

(72) Inventors; and

(75) Inventors/Applicants (for US only): OLSEN, Johan,

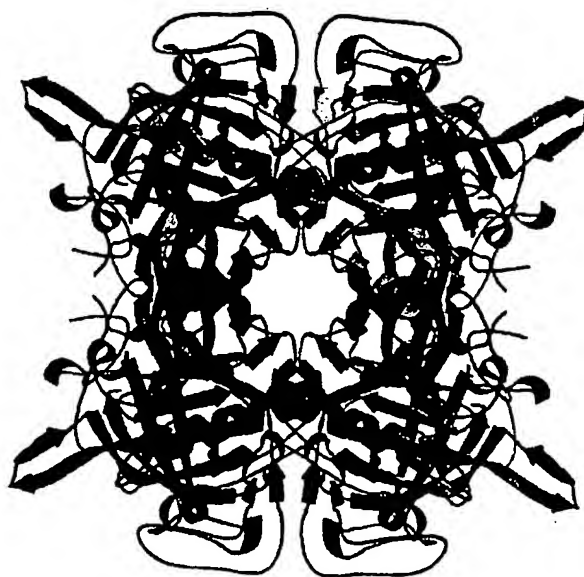
Gotthardt [DK/DK]; Blågårdsgade 25, 3. tv, DK-2200
Copenhagen N (DK). KADZIOLA, Anders [DK/DK];
Jornsborgvej 9, 2. th, DK-2900 Hellerup (DK). DAHL,
Søren, Weis [DK/DK]; Bolbrovej 46, DK-2960 Rungsted
Kyst (DK). LAURITZEN, Connie [DK/DK]; Axelhøj
59, DK-2610 Rødovre (DK). LARSEN, Sine [DK/DK];
Stumpedyssesvej 37, DK-2970 Hørsholm (DK). PEDER-
SEN, John [DK/DK]; Skovparken 8, DK-2990 Nivå (DK).
TURK, Dusan [SI/SI]; Povsetova 33, 1000 Ljubljana (SI).
PODOBNIK, Marjetka [SI/SI]; Polje c. XXX/19, 1260
Ljubljana-Polje (SI). STERN, Igor [SI/SI]; Kvedrova
cesta 34, 8290 Sevnica (SI).

(74) Agent: PLOUGMANN & VINGTOFT A/S; Sankt Annæ
Plads 11, P.O. Box 3007, DK-1021 Copenhagen K (DK).

(81) Designated States (national): AE, AG, AI, AM, AT, AT
(utility model), AU, AZ, BA, BB, BG, BR, BY, BZ, CA,
CH, CN, CO, CR, CU, CZ, CZ (utility model), DE, DE
(utility model), DK, DK (utility model), DM, DZ, EC, EE,
EE (utility model), ES, FI, FI (utility model), GB, GD, GE,
GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ,
LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN,

[Continued on next page]

(54) Title: DIPEPTIDYL PEPTIDASE I CRYSTAL STRUCTURE AND ITS USES



(57) Abstract: The present invention relates to structural studies of dipeptidyl peptidase I (DPPI) proteins, modified dipeptidyl peptidase I (DPPI) proteins and DPPI co-complexes. Included in the present invention is a crystal of a dipeptidyl peptidase I (DPPI) and corresponding structural information obtained by X-ray crystallography from rat and human DPPI. In addition, this invention relates to methods for using structure co-ordinates of DPPI, mutants hereof and co-complexes, to design compounds that bind to the active site or accessory binding sites of DPPI and to design improved inhibitors of DPPI or homologues of the enzyme.

WO 02/20804 A1

BEST AVAILABLE COPY



MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK (utility model), SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) **Designated States (regional):** ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*
- *with sequence listing part of description published separately in electronic form and available upon request from the International Bureau*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

DIPEPTIDYL PEPTIDASE I CRYSTAL STRUCTURE AND ITS USES

Field of invention

The present invention relates generally to structural studies of dipeptidyl peptidase I
5 (DPPI) proteins, modified dipeptidyl peptidase I (DPPI) proteins and DPPI co-complexes.
Included in the present invention is a crystal of the dipeptidyl peptidase I (DPPI) and
corresponding structural information obtained by X-ray crystallography. In addition, this
invention relates to methods for using the structure co-ordinates of DPPI, mutants hereof
and co-complexes to design compounds that bind to the active site or accessory binding
10 sites of DPPI and to design improved inhibitors of DPPI or homologues of the enzyme.

Background of invention

Dipeptidyl peptidase I (DPPI, EC 3.4.14.1), previously known as dipeptidyl
aminopeptidase I (DAP), dipeptidyl transferase, cathepsin C and cathepsin J is a
lysosomal cysteine exo-peptidase belonging to the papain family. DPPI is widely
15 distributed in mammalian and bird tissues and the main sources of purification of the
enzyme are liver and spleen. The cDNAs encoding rat, human, murine, bovine, dog and
two Schistosome DPPIs have been cloned and sequenced and show that the enzyme is
highly conserved. The human and rat DPPI cDNAs encode precursors (preproDPPI)
comprising signal peptides of 24 residues, proregions of 205 (rat DPPI) or 206 (human
20 DPPI) residues and catalytic domains of 233 residues which contain the catalytic residues
and are 30-40% identical to the mature amino acid sequences of papain and a number of
other cathepsins including cathepsins L, S, K, B and H.

The translated preproDPPI is processed into the mature form by at least four cleavages of
25 the polypeptide chain. The signal peptide is removed during translocation or secretion of
the proenzyme (proDPPI) and a large N-terminal proregion fragment, which is retained in
the mature enzyme, is separated from the catalytic domain by excision of a minor C-
terminal part of the proregion, called the activation peptide. A heavy chain of about 164
residues and a light chain of about 69 residues are generated by cleavage of the catalytic
30 domain.

Unlike the other members of the papain family, mature DPPI consists of four subunits, each composed of the N-terminal proregion fragment, the heavy chain and the light chain. Both the proregion fragment and the heavy chain are glycosylated.

5 DPPI catalyses excision of dipeptides from the N-terminus of protein and peptide substrates, except if (i) the amino group of the N-terminus is blocked, (ii) the site of cleavage is on either side of a proline residue, (iii) the N-terminal residue is lysine or arginine, or (iv) the structure of the peptide or protein prevents further digestion from the N-terminus.

10

DPPI is expressed in many tissues and has generally been associated with protein degradation in the lysosomes. More recently, DPPI has also been assigned an important role in the activation of many granule-associated serine proteinases, including cathepsin G and elastase from *neutrophils*, granzyme A, B and K from *cytotoxic lymphocytes* (CTL,

15 NK and LAK cells) and chymase and tryptase from *mast cells*. These immune/inflammatory cell proteinases are translated as inactive zymogens and the final step in the conversion to their active forms is a DPPI-catalysed removal of an activation dipeptide from the N-terminus of the zymogens. DPPI $-/-$ knock-out mice have been shown to exclusively accumulate the inactive, dipeptide extended proforms of the pro-apoptotic
20 proteases granzyme A and B.

Many of the granule-associated proteases, which are activated by DPPI, serve important biological functions and inhibition of DPPI may thus be a general means of controlling the activities of these proteases.

25

Neutrophils cause considerable damage in a number of pathological conditions. When activated, neutrophils secrete destructive granular enzymes, including elastase and cathepsin G, and undergo oxidative bursts to release reactive oxygen intermediates. Numerous studies have been conducted on each of these activating agents in isolation.

30 Pulmonary emphysema, cystic fibrosis and rheumatoid arthritis are just some examples of pathological conditions associated with the potent enzymes elastase and cathepsin G. Specifically, the imbalance in plasma levels of these two enzymes and their naturally occurring inhibitors, alpha 1-protease inhibitor and antichymotrypsin, may lead to severe and permanent tissue damage. These facts together with the shown relation between the
35 induction of neutrophil activation and the activation and release of elastase and cathepsin

G point to DPPI as an alternative target enzyme for therapeutic intervention against rheumatoid arthritis and related autoimmune diseases.

Cytotoxic lymphocytes play an important role in host-cell responses against viral and intracellular bacterial pathogens. They are also involved in anti-tumour responses, allograft rejection, and in a number of various autoimmune diseases. Though CTL, NK, and LAK cells kill via multiple mechanisms, evidence over the past few years have shown that two major pathways are responsible for the induction of target cell apoptosis. These are the Fax-FasL pathway and the granule exocytosis pathway.

10

Activated cytotoxic lymphocytes contain lytic granules, which are the hallmark of specialised killer cells. Among the proteins found in lytic granules are perforin and the highly related serine proteases of the granzyme family, including granzyme A, B and K. The importance of perforin and granzymes for cell-mediated cytotoxicity and apoptosis has been firmly established in several loss-of-function models.

Granzyme A and B knockout mice have shown that granzyme B is critical for the rapid induction of apoptosis in susceptible target cells, while granzyme A plays an important role in the late pathway of cytotoxicity. The above mentioned fact that DPPI $-/-$ knock-out mice have been shown to exclusively accumulate the inactive proforms of granzyme A and B points to DPPI as an alternative target enzyme for therapeutic intervention and also provides a rationale for developing inhibitors against DPPI that could modulate immune responses against tumours, grafts, and various autoimmune diseases.

Mast cells are found in many tissues, but are present in greater numbers along the epithelial linings of the body, such as the skin, respiratory tract and gastrointestinal tract. Mast cells are also located in the perivascular tissue surrounding small blood vessels. This cell type can release a range of potent inflammatory mediators including cytokines, leukotrienes, prostaglandins, histamine and proteoglycans. Among the most abundant products of mast cell activation, though, are the serine proteases of the chymotrypsin family, tryptase and chymase. The use of *in vivo* models has provided confirmatory evidence that tryptases and chymases are important mediators of a number of mast cell mediated allergic, immunological and inflammatory diseases, including asthma, psoriasis, inflammatory bowel disease and atherosclerosis. For years, pharmaceutical companies have targeted the inhibition of tryptase and chymase as a drug intervention strategy.

However, the active sites and catalytic activities of tryptases and chymases closely resemble a number of other proteases of the same family and it has proven very difficult to design inhibitors that are at the same time sufficiently selective, potent, non-toxic and bioavailable. Furthermore, the large quantities of tryptases and chymases that are
5 synthesised and released by mast cells make it difficult to ensure a continuous and satisfactory supply of inhibitors at the sites of release. The strong evidence associating tryptases and chymases with a number of mast cell mediated allergic, immunological and inflammatory diseases, and the fact that DPPI is needed for the activation of tryptase and chymase, outline DPPI as an alternative target enzyme for therapeutic intervention
10 against the above mentioned mast cell diseases.

Low molecular weight substrates that mimic peptidyl inhibitors of DPPI, such as Gly-Phe- and Gly-Arg- diazomethyl ketones, chloromethyl ketones and fluoromethyl ketones have previously been reported. However, due to their peptidic nature and reactive groups, such
15 inhibitors are typically characterised by undesirable pharmacological properties, such as poor oral absorption, poor stability, rapid metabolism and high toxicity.

Knowledge of the crystal structure co-ordinates and atomic details of DPPI, or its mutants or homologues or co-complexes, would facilitate or enable the design, computational
20 evaluation, synthesis and use of DPPI inhibitors with improved properties as compared to the known peptidic DPPI inhibitors.

In addition to the interest in the unique structural and functional properties of DPPI, attention has also been turned to the technological applications of the enzyme.
25

By virtue of its restricted specificity, DPPI has been shown to be suitable for excision of certain extension peptides from the N-termini of recombinant proteins having a DPPI stop-point integrated in or placed in front of their N-terminal sequences. These properties of DPPI have been utilised to develop a specific and efficient method using recombinant
30 DPPI variants for complete removal of a group of purification tags from the N-termini of target proteins. The addition of purification tags to the target protein is a simple and well-established approach for generating a novel affinity, making one-step purifications of recombinant proteins possible by using affinity chromatography. The combined processes of using purification tags for purification of recombinant proteins and DPPI for cleavage of
35 the purification tag generating the desired N-terminal in the target protein (the DPPI/tag

strategy), hold promises for use in large-scale productions of pharmaceutical proteins and peptide products. Its strength obviously is the simple overall design, the use of robust and inexpensive matrices, and the use of efficient enzymes.

- 5 In order to fully exploit the potential of this DPPI/tag strategy, it is thus desirable to alter the chemical, physical and enzymatic properties of DPPI to be able to use the enzyme in different condition, thereby making the DPPI/tag strategy more efficient, flexible and/or even more economically feasible.
- 10 Furthermore, besides its aminopeptidase activity, DPPI also displays a transferase activity, i.e. DPPI catalyses the transfer of dipeptide moieties from amides and esters of dipeptides to the N-terminal of unprotected peptides and proteins. This transferase activity of DPPI consequently bears a potential usage in methods for enzymatic synthesis and/or semisynthesis of peptides and proteins, but because of problems with the reverse
- 15 (aminopeptidase) activity and substrate restrictions, transpeptidation by DPPI has been rarely used or exploited for peptide and protein synthesis.

The crystal structure of a number of cysteine peptidases of the papain family, including papain, chymopapain, actinidin, cathepsin B, and cathepsin have been known for many

20 years, but despite DPPI being highly homologous to the other members of the papain family, and despite DPPI being available as purified and characterised preparation since 1960 (Metrione, R.M. et al, Biochemistry 5, 1597-1604, 1966; McDonnald J. K. et al, J. Biol. Chem. 244, 2693-2709, 1969), it has until now been impossible to obtain crystals of DPPI for solving the crystal structure of the enzyme.

25

- Alternative interests have thus been focussed on trying to solve some of the structural features of DPPI through homology modelling, based on the known crystal structures of other cysteine peptidases of the papain family. However, although there are many resemblances to these other cysteine peptidases, it has not been possible to model the
- 30 structure of DPPI because of very distinct differences. These differences include the oligomeric structure of DPPI, the detainment of the residual propeptide in the active enzyme and a unique chain cleavage pattern in active DPPI, features not present in and/or seen in the known crystal structures of the other cysteine peptidases of the papain family.

Object of invention

The object of the invention is a crystal structure of a dipeptidyl peptidase I (DPPI) protein, a modified dipeptidyl peptidase I (DPPI) protein, a protein comprising at least 37% identity with the amino acid sequence of rat DPPI, as shown in Figure 1 and/or in SEQ ID NR. 1, or a DPPI co-complexe, and the use of the atomic co-ordinates of a said crystal structure obtained by X-ray crystallography, such as for designing inhibitors of DPPI and homologues of said enzyme.

Summary of invention

Despite numerous unsuccessful attempts to determine the crystal structure, atomic co-ordinates and structural model of DPPI, the present invention surprisingly provides crystals of DPPI, which effectively diffract X-rays and thereby allow the determination of the atomic co-ordinates of the protein. The present invention furthermore provides the means to use this structural information as the basis for a design of new and useful ligands and/or modulators of DPPI, including efficient, stabile and non-toxic inhibitors of DPPI. The present invention also provides the means for designing DPPI mutants with optimised properties and/or with other specific characteristics and also for the modelling of the structure of different variants of DPPI, including but not limited to DPPI from different species, a DPPI mutant and a DPPI or DPPI mutant complexed with specific ligands.

First of all, the present invention provides a crystal containing a rat DPPI protein that effectively diffracts X-rays and thereby allows the determination of the atomic co-ordinates of a protein to a resolution greater than 5.0 Ångströms. In a preferred embodiment of this type, the crystal effectively diffracts X-rays for the determination of the atomic co-ordinates of said protein to a resolution greater than 3.0 Ångströms, and in an even more preferred embodiment, the crystal effectively diffracts X-rays for the determination of the atomic co-ordinates of a DPPI protein to a resolution of at least 2.0 Ångströms.

Furthermore, the present invention provides the crystal structural co-ordinates for human DPPI.

30

In one embodiment of the invention, the crystal comprises the amino acid sequence of a protein being at least 75%, such as 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or 100% identical to rat DPPI, as shown in Figure 1, including DPPI from different species,

such as human or mouse DPPI. In another embodiment of the invention, even a crystal comprising an amino acid sequence of a protein being as little as at least 37% overall identical to rat DPPI are embodied.

- 5 The rat DPPI amino acid sequence shown in Figure 1 is identical to the one shown in SEQ.ID.NO.1.

- Preferably, a crystal comprises an amino acid sequence of a protein having a polypeptide sequence which shares at least 37% (more preferably at least 45%, even more preferably
- 10 at least 55%, and most preferably at least 65%) amino acid sequence identity to the amino acid sequence of rat DPPI (Figure 1) and at least 50% (more preferably at least 60%, even more preferably at least 70%, and most preferably at least 80%) amino acid sequence identity to the catalytic domain of human DPPI, as determined by pair-wise sequence alignment using the computer program Clustal W 1.8 (Thompson et al. (1994)
- 15 Nucleic Acids Res. 22, 4673-4680).

- The crystal ideally comprises the amino acids of proteins that are homologous to rat DPPI and/or display a functional homology to rat DPPI, such as an aminopeptidase activity and/or a transferase activity. In a preferred embodiment of the invention, the crystal
- 20 comprises a protein with an amino acid sequence as shown in Figure 1.

- The present invention provides a crystal of a DPPI-like enzyme wherein the space group is $P6_422$ and the unit cell dimensions are $a = 166.24 \text{ \AA}$, $b = 166.24 \text{ \AA}$, $c = 80.48 \text{ \AA}$ with $\alpha = \beta = 90^\circ$ and $\gamma = 120^\circ$. The rat DPPI structure disclosed in the present invention is listed in
- 25 **Table 2** and provides new and surprising insight into the structural arrangement of DPPI. The protein was crystallised as a tetramer in accordance with the oligomeric structure of the enzyme *in vivo*.

- The present invention further provides a crystal of a DPPI-like protein having structural
- 30 elements comprising subunits that are assembled in a ring-like structure with the residual pro-parts and catalytic domains of neighbouring subunits being assembled head-to-tail so that each kind of domain points upwards and downwards, alternately, and the active sites point away from the centre of the ring (**Figure 3**). The catalytic domain of rat DPPI is herein shown to have a similar fold to papain (**Figure 4 and 5**). Residues 1-119 form a
- 35 well-defined beta-barrel domain with little or no alpha helical structure.

The present invention hereby provides a crystal structure model of a DPPI-like protein, wherein the residual pro-part domain is located relative to the catalytic domain blocking the extreme end of the unprimed active site cleft. Most significantly, the N-terminus of the residual pro-part projects further towards the catalytic residues and the free amino group of the conserved Asp1 is held in position by a hydrogen bond to the backbone oxygen atom of Asp274. This arrangement provides a negative charge, located on the side chain of Asp1, in a fixed position within the active site cleft. The delocalised negative charge that this residue carries under physiological conditions on its OD1 and OD2 oxygen atoms is localised about 7.4 and 8.7 Å from the sulphur atom of the catalytic Cys233 residue. Thus, the present invention provides proof that the protonated N-termini of peptide substrates form a salt bridge to the negative charge on the side chain of Asp1. Furthermore, the position of the N-terminal Asp1 residue is shown to be fixed by a hydrogen bond between the free amino group of this residue (hydrogen bond donor) and the backbone carbonyl oxygen of Asp274 (hydrogen bond acceptor).

The present invention thus elucidates a surprising and novel principle for substrate binding that can be used in constructing models for other substrate binding peptides. The donation of a negative charge in the active site cleft of a cysteine peptidase by the side chain of the N-terminal residue of the residual pro-part is a novel structural feature not previously observed.

In the crystal structure of the present invention, a wide and deep pocket is located between Asp1 and Cys233, which may accommodate the side chains of one or both of the two most N-terminal substrate residues. In addition to Asp1 and Cys233, this pocket is defined by residual pro-part, heavy chain and light chain residues including, but not limited to, Tyr64, Gly231, Ser232, Tyr234, Ala237, Asp274, Gly275, Gly276, Phe277, Pro278, Thr378, Asn379, His380, Ala381.

The active sites in DPPI proteins from different species can be expected to be structurally very similar. Therefore, the present invention provides a very good and usable model for the active sites of most mammalian DPPI, including but not limiting to that of human DPPI.

The present invention also relates to a method for growing a crystal of a DPPI-like protein. This method comprises obtaining a stock solution containing 1.5 mg/ml of a DPPI-like

protein in 25 mM sodium phosphate pH 7.0, 150 mM NaCl, 1 mM ethylene diamine triacetate (EDTA), 2 mM cysteamine and 50% glycerol, dialysing a portion of the stock solution against 20 mM bis-tris-HCl pH 7.0, 150 mM NaCl, 2 mM dithiothreitol (DTT), 2 mM EDTA and employing the hanging drop vapour diffusion technique with 0.8 ml
5 reservoir solution and drops containing 2 μ l protein solution and 2 μ l reservoir solution in conditions employing (0.1 M Tris pH 8.5, 2.0 M $(\text{NH}_4)_2\text{SO}_4$). In a preferred embodiment, the method of the present invention will thus result in the formation of star-shaped crystals or alternatively in the formation of box-shaped crystals.

- 10 In a specially preferred embodiment, an optimum for a box shaped crystal form is obtained by using reservoir solution containing 0.1 M bis-tris propane pH 7.5, 0.15 M calcium acetate and 10 % PEG 8000. Drops are optimally set up with equal volumes of reservoir solution and protein solution wherein the protein concentration is 12 mg/ml.
- 15 In another, equally preferred embodiment, optimal crystallisation conditions for a star-shaped crystal form are provided at 1.4 M $(\text{NH}_4)_2\text{SO}_4$ and 0.1 M bis-tris propane pH 7.5.

The present invention further provides methods of screening drugs or compositions or polypeptides that either enhance or inhibit DPPI enzymatic activity. A concept based on
20 inhibition of DPPI for therapeutic intervention against the above mentioned mast cell, neutrophils and cytotoxic lymphocytes proteinase mediated diseases is included.

As DPPI is a dipeptidyl peptidase with a unique specificity, it is potentially more simple to design specific and effective DPPI inhibitors, which do not cross-react with proteinases of
25 the same family than to develop tryptase, chymase, granzyme A, B and K, elastase and cathepsin G inhibitors. Therefore, the present invention will provide the means for designing a specific and effective therapeutic inhibitor against mast cell, neutrophils and cytotoxic lymphocytes proteinase mediated diseases.

- 30 Due to the lower cellular levels of DPPI compared to the levels of tryptase, chymase, granzyme A, B and K, elastase and cathepsin G, inhibition of DPPI activity is also presumed to be more easily accomplished.

The present invention will further make it possible to design DPPI inhibitor prodrugs that
35 are resorbed as inactive inhibitors and subsequently activated to their active forms by

either tryptase, chymase, granzyme A, B and K, elastase and cathepsin G, specifically at the site of their release, due to activation of mast cell, neutrophils and cytotoxic lymphocytes at the site of inflammation or immunoreaction.

- 5 Furthermore, DPPI has been assigned an important role in the life circle of several species of blood flukes of the genus *Scistosoma*, which as adult live and lay eggs in the blood vessels of the intestines, bladder and other organs. These *Scistosoma* blood flukes cause scistosomiasis, which is considered the most important of the human helminthiases in terms of morbidity and mortality. Scistosomes are obligate blood feeders and
- 10 haemoglobin from the host blood is essential for *Scistosoma* parasite development, growth and reproduction. Haemoglobin released from the erythrocytes of the host is catabolyzed by the *Scistosoma* to dipeptides and free amino acid and then incorporated into *Scistosoma* proteins. The enzymes that participate in the pathway for degradation of haemoglobin into amino acid components useful for the *Scistosoma* parasite are not fully
- 15 known. DPPI, however, is believed to play a key-role in degrading small peptides, generated from haemoglobin by endopeptidases, to dipetides, which then can be taken up by simple diffusion or by active transport via an oligopeptide transporter system. Thus DPPI is pointed out as an important target enzyme for therapeutic intervention against *Scistosoma* blood flukes scistosomiasis, by using a DPPI-inhibition concept similar to the
- 20 above mentioned concept for therapeutic intervention against mast cell, neutrophils and cytotoxic lymphocytes proteinase mediated diseases.

Thus, the present invention provides a method for using the crystals of the present invention or the structural data obtained from these crystals for drug and/or inhibitor

25 screening assays. In one such embodiment the method comprises selecting a potential drug by performing rational drug design with the three-dimensional structure determined from the crystal. The selecting is preferably performed in conjunction with computer modelling. The potential drug or inhibitor is contacted with a DPPI-like protein or a domain of a DPPI-like protein and the binding of the potential drug or inhibitor with this domain is

30 detected. A drug is selected which binds to said domain of a DPPI-like protein or an inhibitor, which successfully inhibits the enzymatic activity of DPPI.

In a preferred embodiment of the present invention, the method further comprises growing a supplemental crystal containing a protein-co-complex or a protein-inhibitor complex

35 formed between the DPPI-like protein and the second or third component of such a

complex. The crystal effectively diffracts X-rays, allowing the determination of the co-ordinates of the complex to a resolution of greater than 3.0 Ångströms and more preferably still, to a resolution greater than 2.0 Ångströms. The three-dimensional structure of the supplemental crystallised protein is then determined with molecular replacement analysis.

A drug or an inhibitor is selected by performing rational drug design with the three-dimensional structure determined for the supplement crystal. The selecting is preferably performed in conjunction with computer modelling.

10

In addition, in order to fully exploit the potential of the combined processes of using purification tags for purification of recombinant proteins and DPPI for cleavage of the purification tag generating the desired N-terminal in the target protein (the DPPI/tag strategy), the present invention further provides the means to alter the chemical, physical and enzymatic properties of DPPI to be able to use the enzyme in different conditions, thus making the DPPI/tag strategy more efficient, flexible and/or even more economic feasible. These changes could include e.g. increase in the thermostability, increase in the stability towards chaotropic agents and detergents, increase in the stability at alkaline pH, changes in certain amino acids residues for targeted chemical modifications, changes in the catalytic efficiency (k_{cat}/K_M) or changes to the catalytic specificity. In addition, it could be desirable to alter the oligomeric structure of DPPI or to enhance the intramolecular interactions between the DPPI subunits or domains. Furthermore, the knowledge provided in the present invention of the crystal structure co-ordinates and atomic details of DPPI will enable the design of efficient and specific immunoassays for the important and necessary tracing of DPPI at different stages during protein purification processes based on the DPPI/tag strategy.

Regarding the transferase activity of DPPI, knowledge of the crystal structure co-ordinates and atomic details of DPPI, elucidated in the present invention, will enable the design of mutants of DPPI with different ratios between aminopeptidase and transferase activity and reduced levels of substrate restrictions, making them suitable for effective enzymatic synthesis or semisynthesis of peptides and proteins. Because of a simple overall design and the use of non-toxic and efficient enzymes, the use of DPPI mutants, with optimised properties with respect to transpeptidase reactions, holds promises for use in large-scale productions of pharmaceutical protein and peptide products.

The present invention thus relates to the crystal structure, atomic co-ordinates and structural models of DPPI, of forms of DPPI which contain at least a part of the catalytic domain and of mutants of any of these enzyme forms or partial enzyme forms. The
5 present invention also provides a method for designing chemical entities capable of interacting with DPPI, with proDPPI or with any naturally existing form of partially processed proDPPI. Furthermore, the present invention provides the structural basis for the design of mutant forms of DPPI with altered characteristics and functionality.

Legends to figures

Figure 1. Amino acid sequence of rat DPPI

Figure 2. Clustal W alignment of amino acid sequences of proDPPI (DPPI proenzyme)
5 from different species . Using rat proDPPI numbering the four sequence regions
are:residuel pro-part (residues 1-119), activation peptide (residues 120-205), heavy chain
(residues 206-369) and light chain (residues 370-438). Minor differences have been
observed.

10 Figure 3. The rat DPPI tetramer with each subunit oriented with either the residual pro-
part in the front as in FIG 5: monomer 1 BW.jpg (upper right and lower left subunits) or
with the catalytic domain in the front (upper left and lower right subunits).

Figure 4. Schematic presentation of a rat DPPI subunit (upper molecule) and of papain
15 (lower molecule). One subunit of rat DPPI is clearly formed by two domains (the residual
pro-part domain (residues D1-M118) and the catalytic domain (residues L204-H365 and
P371-L438)) of which the latter shows structural homology to papain.

Figure 5. Rat DPPI monomer with the beta-barrel residual pro-part domain in the front and
20 catalytic domain in the back.

Figure 6. Cathepsin C crystal grown from 0.15 M Bis-tris propane, pH 7.5 and 10% PEG
8000.

25 Figure 7. The cathepsin C crystal form used to detrmine the molecular structure of the
enzyme. This is a single crystal. Diameter varied between 0.5 and 1 mm, thickness at
center between 0.1 and 0.4 mm. Crystals were grown from 0.1 M Bis-tris propane, pH 7.5
and 1.4M (NH₄)₂SO₄.

30 Figure 8. Results from transferase activity assay of wild tye and Asp274 to Gln274 and of
Asn226:Ser229 to Gln226:Asn229 mutants of rat DPPI

Figure 9: Shows a model of the structure of a monomer of human DPPI made based on
the structural data of rat DPPI. The crystal structure of rat DPPI refined to a resolution of

2.4 Å was used as a template for comparative modeling of the human enzyme. The amino acid sequences of the rat and human enzymes were aligned using the program Clustal W. The sequence identity is ~80% for the full length sequences of the rat and human enzymes. Comparative modeling of the human enzyme was performed using the program
5 Modeller (A. Sali and T.L. Blundell (1993) Comparative protein modelling by satisfaction of spatial restraints. J. Mol. Biol. 234, 779-815). The positional root mean square deviation of superimposed CA atoms in the rat and the modelled human structure was determined to 0.2 Å using the program DALI (L. Holm and C. Sander (1996) Mapping the protein universe. Science 273, 595-602).

10

Figure 10: Tetrahedral structure of human DPPI

- a) Molecular surface of tetrahedral structure of DPPI. Surfaces of papain-like domains and residual propart domains are shown. The view is along two active sites towards the residual propart domain hairpin loop (Lys 82 - Tyr 93) building a wall behind the active site
15 cleft and five N-terminal residues shown in orange. The left and right molecules are shown from the back towards the residual propart domain. The molecular surface was generated with GRASP (Nicholls et al., 1991), the figure was prepared in MAIN (Turk, 1992) and rendered with RENDER (Merritt and Bacon, 1997).
- b) DPPI dimer. Head-to-tail arrangement of two pairs of papain-like and residual propart
20 domains. The view is from the inside of the tetramer along the dimer twofold. The figure was created with RIBBONS (Carson, 1991).
- c) Ribbon plot of the functional monomer of DPPI. The view shows the structure from the top, down the central alpha helix. It is perpendicular to the view used in Figure 10a. The side chain of catalytic Cys 234 and disulfides are shown with yellow sticks. The figure was
25 created with RIBBONS (Carson, 1991).
- d) sequence of residual propart domain with its secondary structure assignment.

Figure 11: Active site cleft of human DPPI with a bound model of the N-terminal sequence ERILGG from the biological substrate, granzyme A.

- 30 a) Stereo view: Covalent bonds of papain-like domains and residual propart domain are shown. Covalent bonds of substrate model are shown. To them corresponding carbon atoms are shown as balls using the covalent bond scheme. Chloride ions is shown as a large sphere. Oxygen, nitrogen and sulphur atoms are shown as grey spheres. The residues relevant for substrate binding are marked and hydrogen bonds are shown as
35 white broken lines. The molecular surface was generated with GRASP (Nicholls et al.,

1991), the figure was prepared in MAIN (Turk, 1992) and rendered with RENDER (Merritt and Bacon, 1997).

b) Schematic presentation. The same codes are used as in Figure 11a.

5 Figure 12: Features of papain-like exopeptidases.

A view towards the active site clefts of superimposed papain-like proteases. The underlying molecular surface of cathepsin L, shown in white, is used to demonstrate an endopeptidase active site cleft, which is blocked by features of the exopeptidase structures. Chain traces of cathepsins B, X, H are shown. Bleomycin hydrolase chain

10 trace is not shown for clarity reasons although its C-terminal residues superimpose almost perfectly to the C-terminal residues of cathepsin H mini-chain.

Figure 13: Superposition of *erwinia chrysanthemi* metallo protease inhibitor on the residual propart domain.

15 The figure was prepared with MAIN (Turk, 1992) and rendered with RENDER (Merritt and Bacon, 1997).

Figure 14: Regions with missense mutations resulting in genetic diseases.

The figures were prepared with MAIN (Turk, 1992) and rendered with

20 RENDER (Merritt and Bacon, 1997).

a) Missense mutations overview. Mutated residues are marked with their sequence IDs and residue names in one letter code. The catalytic cysteine is also marked.

b) Y323C mutant with chloride ion coordination. A side view towards the S2 binding pocket containing the chloride ion and its coordination with the active site residues Asp 1
25 and Cys 234 at the top. The main chain bonds are thicker. Oxygens of the main chain carbonyls are omitted for clarity. The chloride ion is a large ball and the small balls adjacent to it are solvent molecules. Chloride coordination is shown with disconnected sticks. Relevant residues are marked with their sequence IDs and residue names.

c) D212Y mutant: View along a molecular twofold. Asp 212 side chain atoms are
30 pronounced as bigger balls.

Detailed description

The term "DPPI" refers to dipeptidyl peptidase I also known as DPPI, DAPI, dipeptidyl aminopeptidase I, cathepsin C, cathepsin J, dipeptidyl transferase, dipeptidyl arylamidase
5 and glucagon degrading enzyme. The term also refers to any polypeptide which shares at least 37% amino acid sequence identity to the amino acid sequence of rat DPPI (Figure 1) and at least 50% amino acid sequence identity to the catalytic domain of human DPPI as determined by pair-wise sequence alignment using the computer program Clustal W 1.8 . (Thompson et al. (1994) *Nucleic Acids Res.* 22, 4673-4680). The enzyme may be of
10 mammalian, avian or insect origin. Alternatively, the enzymes may be obtained by expressing the genes or cDNAs encoding the enzymes or enzyme mutants or enzyme fusions or hybrids hereof in a recombinant system.

The term "pro-DPPI" refers to the single chain proenzyme form of dipeptidyl peptidase I.
15 The term also refers to any polypeptide which shares at least 37% amino acid sequence identity to the amino acid sequence of rat DPPI (Figure 1) and at least 50% amino acid sequence identity to the catalytic domain of human DPPI as determined by pair-wise sequence alignment using the computer program Clustal W 1.8.

20 "DPPI-like protein" are proteins composed of one or more polypeptide chains which has an overall amino acid sequence that is at least 30% identical to the amino acid sequence of mature rat DPPI according to SEQ.ID.NO.1 and which includes a sequence that is at least 30% identical to the residual pro-part domain of rat DPPI.

25 "Equivalent back bone atoms" following Clustal W 1.8 alignment of two or more homologous amino acid sequences, the equivalent back bone atoms can be identified as those polypeptide back bone nitrogen, alpha-carbon and carbonyl carbon atoms of two or more amino acid residues that are aligned in the same position. For example, in an alignment of two polypeptide sequences, the atom which is equivalent to a back bone
30 nitrogen atom in one residue is the back bone nitrogen atom in the residue in the other sequence which is aligned in the same position. The atoms in residues that are not aligned, e.g. because of a gap in the other sequence or because of different sequence lengths, do not have equivalent back bone atoms.

The term "structural alignment" refers to the superpositioning of related protein structures in three-dimensional space. This is preferably done using specialised computer software. The optimum structural alignment of two structures is generally characterised by having the global minimum root-mean-square deviation in three-dimensional space between
5 equivalent backbone atoms. Optionally, more atoms may be included in the structural alignment, including side chain atoms.

The term "processed" refers to a molecule that has been subjected to a modification, changing it from one form to another. More specifically, the term "processed" refers to a
10 form of pro-DPPI which has been subjected to at least one post-translational chain cleavage (per subunit) in addition to any cleavage resulting in the excision of a signal peptide.

The term "mature" refers to pro-DPPI following native like processing, i.e. processing
15 similar to the processing natural pro-DPPI in vivo. The mature product, DPPI, contains at least about 80% of the residual pro-part, 90% of the heavy and light chain residues and less than 10% of the activation peptide residues.

The term "heavy chain" refers to the major peptide in the catalytic domain of DPPI. In
20 human DPPI, the heavy chain constitutes the proenzyme residues 200-370 or more specifically residues 204-370 or residues 206-370 or even more specifically residues 207-370.

The term "light chain" refers to the minor peptide in the catalytic domain of DPPI. In
25 human DPPI, the light chain constitutes the proenzyme residues 371-439.

The term "proregion" refers to the region N-terminal of the catalytic domain region of pro-DPPI. In human pro-DPPI, the proregion constitutes residues 1-206 or residues 1-205 or residues 1-203 or residues 1-199.

30

The term "activation peptide" refers to the part of the proregion in pro-DPPI, which is excised in the mature form of the enzyme. In human DPPI, the activation peptide constitutes residues 120-206 but may also constitute residues 120-199, 120-203, 120-205, or 120-206 or residues 134-199, 134-203, 134-205, or 134-206. The N-terminal and

C-terminal residues are not confirmed and may vary. The activation peptide of pro-DPPI is thought to be homologous to the propeptides of cathepsins L and S.

The term "residual pro-part" refers to the part of the proregion in pro-DPPI, which is not
5 excised in the mature form of the enzyme.

The term "catalytic domain" refers to the structural unit, which is formed by the heavy chain and light chain in mature DPPI. The structure of the catalytic domain is presumed to be homologous to the structures of mature papain and cathepsins L, S, B etc.

10

The term "inhibitors" refers to chemical compounds, peptides and polypeptides that inhibit the activity of one or more enzymes by binding covalently or non-covalently to the enzyme(s), typically at or close to the active site.

15 The term "protease inhibitors" refers to chemical compounds, peptides and polypeptides that inhibit the activity of one or more proteolytic enzymes. By selecting a specific protease inhibitor or kind of protease inhibitor(s), it is often possible to specifically inhibit the activity of one or more proteases or types of proteases; E-64 and cystatins (e.g. human cystatin C) are relatively non-specific covalent and non-covalent cysteine
20 proteinase inhibitors, respectively. EDTA inhibits Ca^{2+} and Zn^{2+} dependent metalloproteases and PMSF inhibits serine proteases. In contrast, TLCK and TPCK are both inhibitors of serine and some cysteine proteases but only TLCK inhibits trypsin and only TPCK inhibits chymotrypsin.

25 The term "mutant" refers to a polypeptide, which is obtained by replacing or adding or deleting at least one amino acid residue in a native pro-DPPI with a different amino acid residue. Mutation can be accomplished by adding and/or deleting and/or replacing one or more residues in any position of the polypeptide corresponding to DPPI.

30 The term "homologue" refers to any polypeptide, which shares at least 25% amino acid sequence identity to the reference protein as determined by pair-wise sequence alignment using the computer program Clustal W 1.8 (Thompson et al. (1994) Nucleic Acids Res. 22, 4673-4680).

The term "subunit" refers to a part of DPPI. Native DPPI consists of four subunits formed by association of four modified translation products.

The term "preparative scale" refers to expression and/or isolation of a protein in an
5 amount larger than 0.1 mg.

The term "active site" refers to the cavity in each DPPI subunit into which the substrate binds and wherein the catalytic and substrate binding residues are located.

10 The term "catalytic residues" refers to the cysteine and histidine residues in each DPPI subunit, which participate in the catalytic reaction. In human pro-DPPI, the catalytic residues are cysteine 234 and histidine 381.

The term "substrate binding residues" refers to any DPPI residues that may participate in
15 binding of a substrate. Substrates may interact with both the side chain and main chain atoms of DPPI residues.

When used to describe a preparation of a protein or polypeptide, the terms "pure" or "substantially pure" refer to a preparation wherein at least 80% (w/w) of all protein
20 material in said preparation is said protein.

In descriptions of homology between amino acid sequences, the term "identical" refers to amino acid residues of the same kind that are matched following pairwise Clustal W 1.8 alignment (Thompson et al. (1994) Nucleic Acids Res. 22, 4673-4680) of two known
25 polypeptide sequences at the Web server <http://www2.ebi.ac.uk/clustalw/> using the following parameters: scoring matrix: blosum; opening gap penalty: 1. The percentage of amino acid sequence identity between such two known polypeptide sequences is determined as the percentage of matched residues that are identical relative to the total number of matched residues.

30

"Identity" as known in the art, is a relationship between two or more polypeptide sequences or two or more polynucleotide sequences, as determined by comparing the sequences. In the art, "degree of sequence identity" or "percentage of sequence identity" also means the degree of sequence relatedness between polypeptide or polynucleotide
35 sequences, as the case may be, as determined by the match between strings of such

sequences following Clustal W 1.78 alignment. "Identity" and "similarity" can readily be calculated by known methods.

The term "naturally occurring amino acids" refers to the 20 amino acid that are encoded
5 by nucleotide sequences; alanine (Ala, A), cysteine (Cys, C), aspartate (Asp, D),
glutamate (Glu, E), phenylalanine (Phe, F), glycine (Gly, G), histidine (His, H), isoleucine
(Ile, I), lysine (Lys, K), leucine (Leu, L), methionine (Met, M), asparagine (Asn, N), proline
(Pro, P), glutamine (Gln, Q), arginine (Arg, R), serine (Ser, S), threonine (Thr, T), valine
(Val, V), tryptophane (Trp, W) and tyrosine (Tyr, Y). The three-letter and one-letter
10 abbreviations are shown in brackets. Two cysteines may form a disulfide bond between
their gamma-sulphur atoms.

The term "unnaturally occurring amino acids" includes amino acids that are not listed as
naturally occurring amino acids. Unnaturally occurring amino acids may originate from
15 chemical synthesis or from modification (e.g. oxidation, phosphorylation, glycosylation) in
vivo or in vitro of naturally occurring amino acids.

The term "substrate" refers to a compound that reacts with an enzyme. Enzymes can
catalyse a specific reaction on a specific substrate. For example, DPPI can in general
20 excise an N-terminal dipeptide from a peptide or peptide-like molecule except if the N-
terminal residue is positively charged and/or if the cleavage site is on either side of a
proline residue. Other factors, such as steric hindrance, oxidation of the substrate,
modification of the enzyme or presence of unnaturally occurring amino acids, may also
prevent DPPI's catalytic activity.

25

The term "specific activity" refers to the level of enzymatic activity of a given amount of
enzyme measured under a defined set of conditions.

The term "crystal" refers to a polypeptide in crystalline form. The term "crystal" includes
30 native crystals, derivative crystals and co-crystals, as described herein.

The term "native crystal" refers to a crystal wherein the polypeptide is substantially pure.

The term "derivative crystal" refers to a crystal wherein the polypeptide is in covalent
35 association with one or more heavy atoms.

The term "co-crystal" refers to a crystal of a co-complex.

The term "co-complex" refers to a polypeptide in association with one or more
5 compounds.

The term "accessory binding site" refers to sites on the surface of DPPI other than the substrate binding site that are suitable for binding of ligands.

10 "Crystal structure" in the context of the present application refers to the mutual arrangement of the atoms, molecules, or ions that are packed together in a regular way to form a crystal.

"Atomic co-ordinates" is herein used to describe a set of numbers that specifies the
15 position of an atom in a crystal structure with respect to the axial directions of the unit cell of the crystal. Co-ordinates are generally expressed as the dimensionless quantities x , y , z (fractions of unit-cell edges). "Structure co-ordinates" refers to a data set that defines the three dimensional structure of a molecules or molecules. Structure co-ordinates can be slightly modified and still render nearly identical structures. A measure of a unique set
20 of structural co-ordinates is the root-mean-square deviation of the resulting structure. Structural co-ordinates that render three dimensional structures that deviate from one another by a root-mean-square deviation by less than 1.5 Å may be viewed by a person skilled in the art as identical. Hence, the structure co-ordinates set forth in Table 2 are not limited to the values defined therein.

25

The term "heavy atom derivative" refers to a crystal of a polypeptide where the polypeptide is in association with one or more heavy atoms.

The terms "heavy atom" and "heavy metal atom" refer to an atom that is a transition
30 element, a lanthanide metal (includes atom numbers 57-71, inclusive) or an actinide metal (includes atom numbers 89-103, inclusive).

The term "unit cell" refers to the smallest and simplest volume element of a crystal that is completely representative of the unit of pattern of the crystal. The dimensions of the unit

cell are defined by six numbers: dimensions a, b and c and angles alpha (α), beta (β) and gamma (γ).

The term "multiple isomorphous replacement" (MIR) refers to a method of using heavy
5 atom derivative crystals to obtain the phase information necessary to elucidate the three
dimensional structure of a native crystal. The phrase "heavy atom derivatization" is
synonymous with "multiple isomorphous replacement".

The term "molecular replacement" refers to the method of calculating initial phases for a
10 new crystal whose atomic structure co-ordinates are unknown. The method involves
orienting and positioning a molecule, for which the structure co-ordinates are known and
which is presumed to have a three dimensional structure similar to that of the crystallised
molecule, within the unit cell of the new crystal so as to best account for the observed
diffraction pattern of the new crystal. Phases are then calculated from this model and
15 combined with the observed amplitudes to provide an approximate Fourier synthesis of
the structure of the molecules comprising the new crystal. This, in turn, is subject to any of
several methods of refinement to provide a final, accurate set of structure co-ordinates for
the new crystal.

20 The term "prodrug" refers to an agent that is converted to the parent drug in vivo. A
prodrug may be more favourable if it e.g. is bioavailable by oral administration and the
parent drug is not or if it has more favourable pharmacokinetic and/or solubility properties.

Description of the rat DPPI structure

25

The rat DPPI structure disclosed in the present invention (table 2) has revealed several
structural features not present in any known structure of a papain family peptidase. The
electron density defines the spatial arrangement of the residual pro-part residues Asp1 to
Met118, heavy chain residues Leu204 to His365 and Pro371 to Leu438 (numbering
30 according to the sequence of rat proDPPI). Residues Ala119, Thr366 to Ser369 and
Asp370 are not well defined by the electron density and the residues that constitute the
activation peptide (approximately Asn120 to Gln202, Ile203, Leu204 or Ser205) are not
found in the mature enzyme. In accord with previous finding, a few activation peptide
residues (at least Leu204 and Ser205) are attached to the N-terminus of the heavy chain

(Lauritzen *et al.* (1998) *Protein Expr. Purif.* 14, 434-442). Recombinant rat DPPI was characterised as a dimer in solution (Lauritzen *et al.* (1998) *Protein Expr. Purif.* 14, 434-442) but crystallised as a tetramer in accordance with the oligomeric structure of the enzyme *in vivo*. The space group is P6₄22 and the unit cell dimensions are a = 166.24 Å, b = 166.24 Å, c = 80.48 Å with $\alpha = \beta = 90^\circ$ and $\gamma = 120^\circ$.

All related peptidases are monomers and the disclosed structure reveals for the first time the types of interfaces that are found between the four subunits. The crystal structure of the present invention shows that the subunits are assembled in a ring-like structure with the residual pro-parts and catalytic domains of neighbouring subunits being assembled head-to-tail so that each kind of domain points upwards and downwards, alternately, and the active sites point away from the centre of the ring (Figure 3). By this arrangement, the group of residues that form contacts at an interface between two subunits is the same in both subunits. At one rat DPPI subunit interface, residues V54, D74, D104, Y105, L106, R108, L249, Q287, L313, Y316, S318, I435, P436 and K437 (underlined residues are identical in rat and human DPPI according to the sequence alignment in Figure 2) are about 5 Å or closer to one or more residues of the same group in the neighbouring subunit. At a different kind of rat DPPI subunit interface, residues K45, K46, T49, Y51, C330, N331, E332, F372 and G419 (underlined residues are identical in rat and human DPPI according to the sequence alignment in Figure 2) are about 5 Å or closer to one or more residues of the same group in the neighbouring subunit. Other residues may also contribute to subunit interface formation. While every subunit is in close contact with its two neighbouring subunits, no interaction with the third subunit is observed across the ring-like tetrameric structure.

25

As expected on basis of sequence similarity to the catalytic domains of papain family peptidases, the present invention shows that the catalytic domain of rat DPPI has a similar fold (Figure 4 and 5). The fold of the residual pro-part, its interaction with the catalytic domain and role in tetramer formation, however, has previously not been known. The crystal structure of the present invention thus reveals that residues 1-119 form a well-defined beta-barrel domain with little or no alpha helical structure. Interestingly, residues Lys82-C94 form a beta-hairpin that projects away from the barrel and into solution. This unusual feature may be a crystal packing artefact, though, because these loops interact with residues in other tetramers. The residual pro-part domain is shown to be bound to the catalytic domain through contacts to both the heavy and light chains. Residual pro-part

35

residues, including D1, I28, T61, L62, I63, Y64, E69, K76, F78, W101 and H103, are located about 5 Å or closer to one or more of the heavy chain residues P268, Y269, Q271, Y279, L280, K284, D288, G324, G325 and F326 (underlined residues are identical in rat and human DPPI according to the sequence alignment in Figure 2). Similarly, 5 residual pro-part residues, including T7, Y8, P9, Y64 and N65, are located about 5 Å or closer to one or more of the light chain residues F372, N373, L377 and T378 (underlined residues are identical in rat and human DPPI according to the sequence alignment in Figure 2).

- 10 In the present invention, the residual pro-part domain is shown to be located relative to the catalytic domain in a way so that it blocks the extreme end of the unprimed active site cleft. Most significantly, the N-terminus of the residual pro-part projects further towards the catalytic residues and the free amino group of the conserved Asp1 is held in position by a hydrogen bond to the backbone oxygen atom of Asp274. This arrangement is most
- 15 certainly very important in providing a negative charge, located on the side chain of Asp1, in a fixed position within the active site cleft. The delocalised negative charge that this residue carries under physiological conditions on its OD1 and OD2 oxygen atoms is localised about 7.4 and 8.7 Å from the sulphur atom of the catalytic Cys233 residue. This distance together with the dipeptidyl aminopeptidase specificity of rat DPPI strongly
- 20 indicates that the protonated N-termini of peptide substrates form a salt bridge to the negative charge on the side chain of Asp1. Furthermore, the position of the N-terminal Asp1 residue is fixed by a hydrogen bond between the free amino group of this residue (hydrogen bond donor) and the backbone carbonyl oxygen of Asp274 (hydrogen bond acceptor). The donation of a negative charge in the active site cleft of a cysteine
- 25 peptidase by the side chain of the N-terminal residue of the residual pro-part is a novel structural feature not previously observed. Thus the present invention provides a novel and surprising principle for substrate binding which is very different from the binding of the substrate N-terminus by the negative charge on the C-terminal of the cathepsin H "mini-chain" (Guncar, G.*et al.* (1998) *Structure* 6, 51-61). Therefore, in one embodiment of the
- 30 present invention a model is proposed that can be used to elucidate the substrate binding of other DPPI-like enzymes and which might even be employable for other peptidases not belonging to the family of cathepsin peptidases. Another embodiment of the present invention relates to the use of said information for testing and/or rationally or semi-rationally designing a chemical compound which binds covalently or non-covalently to a
- 35 protein with at least 37% amino acid sequence identity to the amino acid sequence of rat

DPPI protein as shown in SEQ.ID.NO.1, characterised by applying in a computational analysis structure co-ordinates of a crystal structure as described above and in table 2.

Between Asp1 and Cys233, a wide and deep pocket is found, which may accommodate
5 the side chains of one or both of the two most N-terminal substrate residues. In addition to Asp1 and Cys233, this pocket is defined by residual pro-part, heavy chain and light chain residues including, but not limited to, Tyr64, Gly231, Ser232, Tyr234, Ala237, Asp274, Gly275, Gly276, Phe277, Pro278, Thr378, Asn379, His380, Ala381. These residues are identical in rat and human DPPI according to the sequence alignment in **Figure 2** except
10 for Asp274, which is a glutamic acid in human DPPI. Both aspartic acid and glutamic acid residues are acidic residues. Accordingly, the active sites in rat and human DPPI can be expected to be structurally very similar and a very good and usable model of the active site of human DPPI and possibly of most of mammalian DPPI can be built using structure co-ordinates of rat DPPI and visa versa. Furthermore, very good models of other closely
15 related DPPI enzymes, such as but not limited to the other mammalian DPPIs included in **Figure 2**, can possibly be built using the structural co-ordinates of rat or human DPPI or both.

An illustrative example is a human DPPI model based on the structural data of rat DPPI.
20 Figure 9 shows a model of the structure of human DPPI made based on the structural data of rat DPPI. Figures 10 - 15 shows the human structure based on the structural co-ordinates of human DPPI as provided in table 2b. It is clear for the skilled person that these two structures resembles each other and the model, based on the rat data, is a good model.

25

A crystal structure and/or the structural co-ordinates of human DPPI are preferred embodiments of the present invention.

Native as well as recombinant rat DPPI is known to be glycosylated. The innermost sugar
30 rings of the carbohydrate chains attached to Asn5 and Asn251 are defined by the electron density.

Table 2

Data set for rat DPPI structural co-ordinates

REMARK Cell parameters: 166.240 166.240 80.480 90.000 90.000 120.000											
5	ATOM	1	CB	ASP	1A	7.373	66.978	44.992	1.00	40.28	A
	ATOM	2	CG	ASP	1A	8.213	67.585	43.883	1.00	41.06	A
	ATOM	3	OD1	ASP	1A	8.141	68.835	43.743	1.00	39.54	A
	ATOM	4	OD2	ASP	1A	8.917	66.840	43.154	1.00	37.74	A
10	ATOM	5	C	ASP	1A	6.573	64.998	46.172	1.00	42.30	A
	ATOM	6	O	ASP	1A	5.669	64.280	45.719	1.00	42.94	A
	ATOM	7	N	ASP	1A	7.835	64.706	44.037	1.00	41.50	A
	ATOM	8	CA	ASP	1A	7.706	65.509	45.288	1.00	41.04	A
	ATOM	9	N	THR	2A	6.625	65.396	47.438	1.00	40.11	A
15	ATOM	10	CA	THR	2A	5.580	65.060	48.386	1.00	38.84	A
	ATOM	11	CB	THR	2A	6.124	64.863	49.827	1.00	37.36	A
	ATOM	12	OG1	THR	2A	6.349	66.141	50.435	1.00	35.14	A
	ATOM	13	CG2	THR	2A	7.432	64.074	49.810	1.00	32.07	A
	ATOM	14	C	THR	2A	4.798	66.369	48.321	1.00	40.07	A
20	ATOM	15	O	THR	2A	5.305	67.364	47.793	1.00	40.24	A
	ATOM	16	N	PRO	3A	3.552	66.389	48.817	1.00	40.73	A
	ATOM	17	CD	PRO	3A	2.642	65.267	49.128	1.00	40.17	A
	ATOM	18	CA	PRO	3A	2.829	67.664	48.742	1.00	39.49	A
	ATOM	19	CB	PRO	3A	1.367	67.247	48.912	1.00	39.93	A
25	ATOM	20	CG	PRO	3A	1.451	65.978	49.723	1.00	41.03	A
	ATOM	21	C	PRO	3A	3.267	68.711	49.768	1.00	40.61	A
	ATOM	22	O	PRO	3A	2.633	69.757	49.902	1.00	40.96	A
	ATOM	23	N	ALA	4A	4.362	68.449	50.478	1.00	41.42	A
	ATOM	24	CA	ALA	4A	4.837	69.401	51.483	1.00	40.22	A
30	ATOM	25	CB	ALA	4A	5.769	68.710	52.458	1.00	40.48	A
	ATOM	26	C	ALA	4A	5.537	70.614	50.883	1.00	39.92	A
	ATOM	27	O	ALA	4A	6.089	70.551	49.792	1.00	38.21	A
	ATOM	28	N	ASN	5A	5.490	71.730	51.599	1.00	39.47	A
	ATOM	29	CA	ASN	5A	6.161	72.937	51.152	1.00	39.98	A
35	ATOM	30	CB	ASN	5A	5.209	73.868	50.393	1.00	39.84	A
	ATOM	31	CG	ASN	5A	5.913	75.116	49.895	1.00	41.98	A
	ATOM	32	OD1	ASN	5A	7.127	75.100	49.714	1.00	41.90	A
	ATOM	33	ND2	ASN	5A	5.163	76.199	49.664	1.00	45.23	A
	ATOM	34	C	ASN	5A	6.719	73.642	52.379	1.00	40.12	A
40	ATOM	35	O	ASN	5A	6.079	74.526	52.947	1.00	41.86	A
	ATOM	36	N	CYS	6A	7.917	73.244	52.790	1.00	39.04	A
	ATOM	37	CA	CYS	6A	8.539	73.835	53.965	1.00	38.07	A
	ATOM	38	C	CYS	6A	9.740	74.705	53.632	1.00	37.39	A
	ATOM	39	O	CYS	6A	10.323	74.586	52.558	1.00	35.73	A
45	ATOM	40	CB	CYS	6A	8.924	72.737	54.950	1.00	37.67	A
	ATOM	41	SG	CYS	6A	7.473	71.858	55.616	1.00	39.13	A
	ATOM	42	N	THR	7A	10.106	75.578	54.568	1.00	37.35	A
	ATOM	43	CA	THR	7A	11.204	76.508	54.351	1.00	37.54	A
	ATOM	44	CB	THR	7A	10.704	77.944	54.443	1.00	38.33	A
50	ATOM	45	OG1	THR	7A	10.288	78.208	55.790	1.00	38.26	A
	ATOM	46	CG2	THR	7A	9.541	78.163	53.492	1.00	32.54	A
	ATOM	47	C	THR	7A	12.377	76.396	55.311	1.00	38.67	A
	ATOM	48	O	THR	7A	12.269	75.814	56.393	1.00	38.94	A
	ATOM	49	N	TYR	8A	13.487	76.990	54.909	1.00	37.53	A
55	ATOM	50	CA	TYR	8A	14.717	76.986	55.704	1.00	37.29	A
	ATOM	51	CB	TYR	8A	15.736	77.936	55.055	1.00	36.29	A
	ATOM	52	CG	TYR	8A	17.113	77.915	55.717	1.00	36.06	A

	ATOM	53	CD1	TYR	8A	18.069	76.957	55.344	1.00	36.55	A
	ATOM	54	CE1	TYR	8A	19.326	76.947	55.960	1.00	35.31	A
	ATOM	55	CD2	TYR	8A	17.426	78.855	56.696	1.00	35.54	A
	ATOM	56	CE2	TYR	8A	18.676	78.844	57.308	1.00	37.01	A
5	ATOM	57	CZ	TYR	8A	19.622	77.895	56.943	1.00	36.40	A
	ATOM	58	OH	TYR	8A	20.836	77.900	57.556	1.00	35.00	A
	ATOM	59	C	TYR	8A	14.409	77.434	57.146	1.00	37.13	A
	ATOM	60	O	TYR	8A	14.727	76.723	58.111	1.00	36.11	A
	ATOM	61	N	PRO	9A	13.750	78.600	57.352	1.00	37.20	A
10	ATOM	62	CD	PRO	9A	13.330	79.601	56.355	1.00	37.24	A
	ATOM	63	CA	PRO	9A	13.427	79.062	58.712	1.00	38.92	A
	ATOM	64	CB	PRO	9A	12.520	80.260	58.459	1.00	36.25	A
	ATOM	65	CG	PRO	9A	13.093	80.832	57.215	1.00	37.48	A
	ATOM	66	C	PRO	9A	12.758	77.999	59.601	1.00	39.85	A
15	ATOM	67	O	PRO	9A	13.006	77.948	60.806	1.00	38.74	A
	ATOM	68	N	ASP	10A	11.918	77.157	59.003	1.00	39.71	A
	ATOM	69	CA	ASP	10A	11.237	76.099	59.752	1.00	41.70	A
	ATOM	70	CB	ASP	10A	10.223	75.360	58.865	1.00	43.47	A
	ATOM	71	CG	ASP	10A	9.218	76.295	58.205	1.00	45.58	A
20	ATOM	72	OD1	ASP	10A	8.646	77.157	58.912	1.00	43.76	A
	ATOM	73	OD2	ASP	10A	8.998	76.152	56.977	1.00	46.03	A
	ATOM	74	C	ASP	10A	12.233	75.070	60.297	1.00	41.37	A
	ATOM	75	O	ASP	10A	12.003	74.477	61.351	1.00	41.01	A
	ATOM	76	N	LEU	11A	13.322	74.852	59.560	1.00	39.73	A
25	ATOM	77	CA	LEU	11A	14.360	73.899	59.951	1.00	40.04	A
	ATOM	78	CB	LEU	11A	15.352	73.673	58.805	1.00	37.02	A
	ATOM	79	CG	LEU	11A	15.482	72.290	58.170	1.00	36.37	A
	ATOM	80	CD1	LEU	11A	16.773	72.249	57.390	1.00	33.14	A
	ATOM	81	CD2	LEU	11A	15.477	71.200	59.229	1.00	35.06	A
30	ATOM	82	C	LEU	11A	15.157	74.351	61.172	1.00	39.94	A
	ATOM	83	O	LEU	11A	15.396	73.559	62.085	1.00	40.09	A
	ATOM	84	N	LEU	12A	15.577	75.616	61.178	1.00	38.17	A
	ATOM	85	CA	LEU	12A	16.378	76.147	62.277	1.00	38.73	A
	ATOM	86	CB	LEU	12A	16.631	77.647	62.086	1.00	38.67	A
35	ATOM	87	CG	LEU	12A	17.334	78.140	60.824	1.00	38.12	A
	ATOM	88	CD1	LEU	12A	17.461	79.648	60.910	1.00	37.44	A
	ATOM	89	CD2	LEU	12A	18.707	77.496	60.693	1.00	37.38	A
	ATOM	90	C	LEU	12A	15.731	75.931	63.639	1.00	38.29	A
	ATOM	91	O	LEU	12A	14.539	76.182	63.804	1.00	38.83	A
40	ATOM	92	N	GLY	13A	16.525	75.476	64.608	1.00	36.39	A
	ATOM	93	CA	GLY	13A	16.013	75.254	65.951	1.00	35.38	A
	ATOM	94	C	GLY	13A	16.466	73.953	66.589	1.00	35.83	A
	ATOM	95	O	GLY	13A	17.469	73.360	66.190	1.00	37.17	A
	ATOM	96	N	THR	14A	15.726	73.498	67.590	1.00	34.33	A
45	ATOM	97	CA	THR	14A	16.079	72.265	68.267	1.00	33.68	A
	ATOM	98	CB	THR	14A	16.049	72.459	69.785	1.00	34.49	A
	ATOM	99	OG1	THR	14A	16.991	73.478	70.143	1.00	34.36	A
	ATOM	100	CG2	THR	14A	16.412	71.171	70.496	1.00	32.57	A
	ATOM	101	C	THR	14A	15.140	71.138	67.871	1.00	34.72	A
50	ATOM	102	O	THR	14A	13.925	71.270	67.964	1.00	35.21	A
	ATOM	103	N	TRP	15A	15.713	70.030	67.419	1.00	35.31	A
	ATOM	104	CA	TRP	15A	14.925	68.886	66.996	1.00	35.06	A
	ATOM	105	CB	TRP	15A	15.318	68.445	65.589	1.00	35.40	A
	ATOM	106	CG	TRP	15A	14.842	69.342	64.504	1.00	37.21	A
55	ATOM	107	CD2	TRP	15A	13.653	69.175	63.727	1.00	36.45	A
	ATOM	108	CE2	TRP	15A	13.618	70.230	62.788	1.00	37.08	A
	ATOM	109	CE3	TRP	15A	12.609	68.236	63.734	1.00	36.02	A
	ATOM	110	CD1	TRP	15A	15.460	70.461	64.030	1.00	36.82	A
	ATOM	111	NE1	TRP	15A	14.733	71.000	62.994	1.00	36.15	A

	ATOM	112	CZ2	TRP	15A	12.578	70.372	61.861	1.00	36.58	A
	ATOM	113	CZ3	TRP	15A	11.580	68.375	62.818	1.00	34.10	A
	ATOM	114	CH2	TRP	15A	11.572	69.437	61.892	1.00	35.53	A
	ATOM	115	C	TRP	15A	15.098	67.702	67.919	1.00	35.31	A
5	ATOM	116	O	TRP	15A	16.188	67.437	68.407	1.00	34.66	A
	ATOM	117	N	VAL	16A	14.006	66.981	68.134	1.00	36.25	A
	ATOM	118	CA	VAL	16A	14.014	65.803	68.974	1.00	35.81	A
	ATOM	119	CB	VAL	16A	13.006	65.916	70.113	1.00	35.33	A
	ATOM	120	CG1	VAL	16A	12.995	64.619	70.922	1.00	32.74	A
10	ATOM	121	CG2	VAL	16A	13.366	67.100	70.981	1.00	31.97	A
	ATOM	122	C	VAL	16A	13.657	64.611	68.121	1.00	36.67	A
	ATOM	123	O	VAL	16A	12.535	64.482	67.627	1.00	37.65	A
	ATOM	124	N	PHE	17A	14.605	63.726	68.009	1.00	37.76	A
	ATOM	125	CA	PHE	17A	14.403	62.568	67.141	1.00	40.71	A
15	ATOM	126	CB	PHE	17A	15.636	62.373	66.258	1.00	39.84	A
	ATOM	127	CG	PHE	17A	15.802	63.473	65.211	1.00	42.30	A
	ATOM	128	CD1	PHE	17A	17.071	63.987	64.928	1.00	42.09	A
	ATOM	129	CD2	PHE	17A	14.685	63.968	64.536	1.00	42.15	A
	ATOM	130	CE1	PHE	17A	17.221	64.989	63.963	1.00	41.86	A
20	ATOM	131	CE2	PHE	17A	14.836	64.970	63.570	1.00	41.37	A
	ATOM	132	CZ	PHE	17A	16.104	65.480	63.283	1.00	40.51	A
	ATOM	133	C	PHE	17A	14.187	61.285	67.967	1.00	43.12	A
	ATOM	134	O	PHE	17A	14.949	60.984	68.898	1.00	43.47	A
	ATOM	135	N	GLN	18A	13.136	60.566	67.590	1.00	42.66	A
25	ATOM	136	CA	GLN	18A	12.793	59.282	68.204	1.00	45.15	A
	ATOM	137	CB	GLN	18A	11.291	59.213	68.406	1.00	47.17	A
	ATOM	138	CG	GLN	18A	11.235	59.696	69.767	1.00	51.58	A
	ATOM	139	CD	GLN	18A	10.020	60.171	70.466	1.00	55.98	A
	ATOM	140	OE1	GLN	18A	10.232	60.743	71.530	1.00	56.73	A
30	ATOM	141	NE2	GLN	18A	8.800	59.986	70.006	1.00	56.66	A
	ATOM	142	C	GLN	18A	13.347	58.234	67.319	1.00	45.57	A
	ATOM	143	O	GLN	18A	13.043	58.198	66.143	1.00	45.74	A
	ATOM	144	N	VAL	19A	14.181	57.379	67.888	1.00	44.67	A
	ATOM	145	CA	VAL	19A	14.844	56.344	67.081	1.00	44.05	A
35	ATOM	146	CB	VAL	19A	16.347	56.480	67.242	1.00	43.34	A
	ATOM	147	CG1	VAL	19A	17.112	55.708	66.165	1.00	42.24	A
	ATOM	148	CG2	VAL	19A	16.798	57.946	67.154	1.00	40.01	A
	ATOM	149	C	VAL	19A	14.418	54.923	67.470	1.00	46.41	A
	ATOM	150	O	VAL	19A	14.471	54.519	68.632	1.00	47.83	A
40	ATOM	151	N	GLY	20A	14.086	54.166	66.410	1.00	46.10	A
	ATOM	152	CA	GLY	20A	13.657	52.772	66.575	1.00	47.27	A
	ATOM	153	C	GLY	20A	14.873	51.849	66.667	1.00	48.99	A
	ATOM	154	O	GLY	20A	16.023	52.317	66.656	1.00	49.37	A
	ATOM	155	N	PRO	21A	14.662	50.525	66.807	1.00	49.15	A
45	ATOM	156	CD	PRO	21A	13.319	49.946	66.894	1.00	49.41	A
	ATOM	157	CA	PRO	21A	15.761	49.571	66.871	1.00	49.49	A
	ATOM	158	CB	PRO	21A	15.062	48.242	67.138	1.00	50.24	A
	ATOM	159	CG	PRO	21A	13.566	48.507	67.201	1.00	50.42	A
	ATOM	160	C	PRO	21A	16.597	49.578	65.579	1.00	49.09	A
50	ATOM	161	O	PRO	21A	16.184	50.160	64.554	1.00	49.95	A
	ATOM	162	N	ARG	22A	17.712	48.952	65.697	1.00	47.61	A
	ATOM	163	CA	ARG	22A	18.726	48.779	64.668	1.00	47.59	A
	ATOM	164	CB	ARG	22A	19.877	48.224	65.345	1.00	47.80	A
	ATOM	165	CG	ARG	22A	21.089	48.221	64.521	1.00	51.80	A
55	ATOM	166	CD	ARG	22A	21.504	46.834	64.105	1.00	54.28	A
	ATOM	167	NE	ARG	22A	22.396	46.873	62.965	1.00	56.17	A
	ATOM	168	CZ	ARG	22A	22.656	45.846	62.179	1.00	55.95	A
	ATOM	169	NH1	ARG	22A	22.067	44.656	62.384	1.00	55.63	A
	ATOM	170	NH2	ARG	22A	23.518	45.918	61.165	1.00	57.96	A

	ATOM	171	C	ARG	22A	18.371	47.743	63.645	1.00	47.10	A
	ATOM	172	O	ARG	22A	17.780	46.742	63.990	1.00	48.31	A
	ATOM	173	N	HIS	23A	18.757	47.972	62.401	1.00	45.90	A
	ATOM	174	CA	HIS	23A	18.507	46.986	61.326	1.00	45.89	A
5	ATOM	175	CB	HIS	23A	17.171	47.233	60.641	1.00	46.36	A
	ATOM	176	CG	HIS	23A	15.961	46.973	61.530	1.00	46.84	A
	ATOM	177	CD2	HIS	23A	14.999	47.805	61.995	1.00	45.78	A
	ATOM	178	ND1	HIS	23A	15.660	45.706	62.026	1.00	47.59	A
	ATOM	179	CE1	HIS	23A	14.557	45.802	62.750	1.00	47.94	A
10	ATOM	180	NE2	HIS	23A	14.150	47.048	62.741	1.00	46.05	A
	ATOM	181	C	HIS	23A	19.605	47.079	60.274	1.00	46.01	A
	ATOM	182	O	HIS	23A	20.137	48.165	60.015	1.00	44.99	A
	ATOM	183	N	PRO	24A	19.963	45.957	59.626	1.00	46.15	A
	ATOM	184	CD	PRO	24A	19.541	44.566	59.860	1.00	44.85	A
15	ATOM	185	CA	PRO	24A	21.008	46.024	58.595	1.00	45.28	A
	ATOM	186	CB	PRO	24A	21.207	44.560	58.194	1.00	45.43	A
	ATOM	187	CG	PRO	24A	20.767	43.796	59.408	1.00	46.89	A
	ATOM	188	C	PRO	24A	20.556	46.871	57.413	1.00	44.14	A
	ATOM	189	O	PRO	24A	19.424	47.344	57.369	1.00	43.79	A
20	ATOM	190	N	ARG	25A	21.453	47.053	56.454	1.00	45.31	A
	ATOM	191	CA	ARG	25A	21.154	47.825	55.258	1.00	46.33	A
	ATOM	192	CB	ARG	25A	22.438	48.059	54.465	1.00	42.76	A
	ATOM	193	CG	ARG	25A	22.300	49.019	53.301	1.00	42.59	A
	ATOM	194	CD	ARG	25A	23.680	49.393	52.774	1.00	41.63	A
25	ATOM	195	NE	ARG	25A	24.364	48.261	52.156	1.00	39.85	A
	ATOM	196	CZ	ARG	25A	24.281	47.951	50.865	1.00	39.83	A
	ATOM	197	NH1	ARG	25A	23.543	48.688	50.048	1.00	38.73	A
	ATOM	198	NH2	ARG	25A	24.946	46.910	50.385	1.00	38.30	A
	ATOM	199	C	ARG	25A	20.130	47.082	54.391	1.00	48.99	A
30	ATOM	200	O	ARG	25A	19.171	47.677	53.901	1.00	49.50	A
	ATOM	201	N	SER	26A	20.325	45.778	54.229	1.00	51.32	A
	ATOM	202	CA	SER	26A	19.434	44.953	53.414	1.00	55.29	A
	ATOM	203	CB	SER	26A	20.087	43.588	53.146	1.00	55.94	A
	ATOM	204	OG	SER	26A	21.424	43.748	52.687	1.00	60.72	A
35	ATOM	205	C	SER	26A	18.057	44.717	54.034	1.00	55.87	A
	ATOM	206	O	SER	26A	17.110	44.378	53.330	1.00	55.71	A
	ATOM	207	N	HIS	27A	17.938	44.906	55.345	1.00	58.03	A
	ATOM	208	CA	HIS	27A	16.666	44.655	56.026	1.00	59.69	A
	ATOM	209	CB	HIS	27A	16.887	43.624	57.142	1.00	63.53	A
40	ATOM	210	CG	HIS	27A	16.884	42.203	56.668	1.00	68.08	A
	ATOM	211	CD2	HIS	27A	17.886	41.295	56.559	1.00	69.51	A
	ATOM	212	ND1	HIS	27A	15.731	41.554	56.271	1.00	70.07	A
	ATOM	213	CE1	HIS	27A	16.021	40.305	55.943	1.00	71.29	A
	ATOM	214	NE2	HIS	27A	17.322	40.122	56.109	1.00	71.73	A
45	ATOM	215	C	HIS	27A	15.918	45.854	56.616	1.00	57.95	A
	ATOM	216	O	HIS	27A	15.012	45.665	57.438	1.00	59.66	A
	ATOM	217	N	ILE	28A	16.263	47.070	56.203	1.00	53.95	A
	ATOM	218	CA	ILE	28A	15.614	48.255	56.750	1.00	49.75	A
	ATOM	219	CB	ILE	28A	16.651	49.417	56.909	1.00	47.70	A
50	ATOM	220	CG2	ILE	28A	17.016	49.977	55.554	1.00	46.96	A
	ATOM	221	CG1	ILE	28A	16.093	50.528	57.801	1.00	46.12	A
	ATOM	222	CD	ILE	28A	15.813	50.089	59.236	1.00	45.53	A
	ATOM	223	C	ILE	28A	14.424	48.718	55.905	1.00	49.28	A
	ATOM	224	O	ILE	28A	14.495	48.770	54.675	1.00	48.52	A
55	ATOM	225	N	ASN	29A	13.322	49.034	56.578	1.00	48.31	A
	ATOM	226	CA	ASN	29A	12.111	49.515	55.917	1.00	48.97	A
	ATOM	227	CB	ASN	29A	11.122	48.369	55.650	1.00	50.69	A
	ATOM	228	CG	ASN	29A	9.902	48.826	54.848	1.00	51.19	A
	ATOM	229	OD1	ASN	29A	9.227	49.790	55.223	1.00	52.60	A

	ATOM	230	ND2	ASN	29A	9.616	48.138	53.747	1.00	50.94	A
	ATOM	231	C	ASN	29A	11.482	50.514	56.872	1.00	47.65	A
	ATOM	232	O	ASN	29A	11.028	50.141	57.955	1.00	47.08	A
	ATOM	233	N	CYS	30A	11.449	51.779	56.469	1.00	47.41	A
5	ATOM	234	CA	CYS	30A	10.916	52.824	57.334	1.00	47.83	A
	ATOM	235	C	CYS	30A	9.555	53.398	56.970	1.00	48.51	A
	ATOM	236	O	CYS	30A	9.289	54.582	57.198	1.00	46.69	A
	ATOM	237	CB	CYS	30A	11.936	53.958	57.456	1.00	44.81	A
	ATOM	238	SG	CYS	30A	13.496	53.434	58.235	1.00	43.71	A
10	ATOM	239	N	SER	31A	8.688	52.565	56.407	1.00	51.93	A
	ATOM	240	CA	SER	31A	7.344	53.025	56.064	1.00	54.65	A
	ATOM	241	CB	SER	31A	6.579	51.934	55.323	1.00	54.29	A
	ATOM	242	OG	SER	31A	6.522	50.764	56.120	1.00	56.06	A
	ATOM	243	C	SER	31A	6.646	53.326	57.391	1.00	55.61	A
15	ATOM	244	O	SER	31A	5.830	54.249	57.488	1.00	55.99	A
	ATOM	245	N	VAL	32A	6.993	52.553	58.420	1.00	55.53	A
	ATOM	246	CA	VAL	32A	6.392	52.740	59.734	1.00	55.45	A
	ATOM	247	CB	VAL	32A	5.362	51.640	60.025	1.00	56.70	A
	ATOM	248	CG1	VAL	32A	4.502	52.045	61.228	1.00	57.70	A
20	ATOM	249	CG2	VAL	32A	4.505	51.393	58.786	1.00	58.90	A
	ATOM	250	C	VAL	32A	7.393	52.745	60.887	1.00	54.83	A
	ATOM	251	O	VAL	32A	8.339	51.944	60.924	1.00	54.07	A
	ATOM	252	N	MET	33A	7.166	53.655	61.830	1.00	53.57	A
	ATOM	253	CA	MET	33A	8.010	53.772	63.008	1.00	52.48	A
25	ATOM	254	CB	MET	33A	7.686	55.054	63.773	1.00	51.56	A
	ATOM	255	CG	MET	33A	8.749	56.111	63.681	1.00	51.27	A
	ATOM	256	SD	MET	33A	10.397	55.476	63.993	1.00	50.70	A
	ATOM	257	CE	MET	33A	10.530	55.681	65.782	1.00	50.26	A
	ATOM	258	C	MET	33A	7.749	52.591	63.928	1.00	53.39	A
30	ATOM	259	O	MET	33A	6.618	52.105	64.017	1.00	53.27	A
	ATOM	260	N	GLU	34A	8.801	52.135	64.600	1.00	53.53	A
	ATOM	261	CA	GLU	34A	8.703	51.041	65.559	1.00	53.79	A
	ATOM	262	CB	GLU	34A	9.885	50.081	65.398	1.00	56.21	A
	ATOM	263	CG	GLU	34A	9.923	49.318	64.095	1.00	57.38	A
35	ATOM	264	CD	GLU	34A	11.181	48.473	63.967	1.00	60.13	A
	ATOM	265	OE1	GLU	34A	12.200	48.996	63.441	1.00	60.67	A
	ATOM	266	OE2	GLU	34A	11.152	47.291	64.406	1.00	58.46	A
	ATOM	267	C	GLU	34A	8.762	51.688	66.948	1.00	53.30	A
	ATOM	268	O	GLU	34A	8.942	52.905	67.065	1.00	50.62	A
40	ATOM	269	N	PRO	35A	8.595	50.891	68.019	1.00	54.04	A
	ATOM	270	CD	PRO	35A	8.159	49.480	68.084	1.00	54.01	A
	ATOM	271	CA	PRO	35A	8.653	51.487	69.363	1.00	53.72	A
	ATOM	272	CB	PRO	35A	8.507	50.277	70.290	1.00	53.37	A
	ATOM	273	CG	PRO	35A	7.576	49.381	69.506	1.00	53.39	A
45	ATOM	274	C	PRO	35A	9.977	52.221	69.563	1.00	52.92	A
	ATOM	275	O	PRO	35A	11.044	51.713	69.214	1.00	52.49	A
	ATOM	276	N	THR	36A	9.893	53.424	70.114	1.00	52.82	A
	ATOM	277	CA	THR	36A	11.065	54.251	70.352	1.00	52.88	A
	ATOM	278	CB	THR	36A	10.652	55.615	70.900	1.00	52.84	A
50	ATOM	279	OG1	THR	36A	9.787	56.256	69.952	1.00	53.43	A
	ATOM	280	CG2	THR	36A	11.882	56.489	71.174	1.00	51.27	A
	ATOM	281	C	THR	36A	12.018	53.605	71.343	1.00	54.29	A
	ATOM	282	O	THR	36A	11.591	53.086	72.381	1.00	52.15	A
	ATOM	283	N	GLU	37A	13.316	53.647	71.002	1.00	55.22	A
55	ATOM	284	CA	GLU	37A	14.349	53.055	71.861	1.00	56.98	A
	ATOM	285	CB	GLU	37A	15.121	51.992	71.111	1.00	58.29	A
	ATOM	286	CG	GLU	37A	14.341	50.702	70.932	1.00	61.75	A
	ATOM	287	CD	GLU	37A	15.254	49.520	70.706	1.00	63.86	A
	ATOM	288	OE1	GLU	37A	14.747	48.363	70.529	1.00	64.28	A

	ATOM	289	OE2	GLU	37A	16.520	49.708	70.697	1.00	62.16	A
	ATOM	290	C	GLU	37A	15.334	54.114	72.344	1.00	57.10	A
	ATOM	291	O	GLU	37A	15.850	54.039	73.462	1.00	57.55	A
	ATOM	292	N	GLU	38A	15.611	55.085	71.502	1.00	57.04	A
5	ATOM	293	CA	GLU	38A	16.483	56.165	71.910	1.00	55.60	A
	ATOM	294	CB	GLU	38A	17.868	56.197	71.349	1.00	58.17	A
	ATOM	295	CG	GLU	38A	18.918	55.073	71.215	1.00	61.04	A
	ATOM	296	CD	GLU	38A	19.569	54.526	72.477	1.00	63.70	A
	ATOM	297	OE1	GLU	38A	19.829	53.280	72.505	1.00	63.69	A
10	ATOM	298	OE2	GLU	38A	19.849	55.287	73.474	1.00	63.58	A
	ATOM	299	C	GLU	38A	15.840	57.518	71.486	1.00	54.27	A
	ATOM	300	O	GLU	38A	14.985	57.581	70.588	1.00	54.33	A
	ATOM	301	N	LYS	39A	16.267	58.568	72.147	1.00	51.32	A
	ATOM	302	CA	LYS	39A	15.763	59.913	71.905	1.00	49.38	A
15	ATOM	303	CB	LYS	39A	14.885	60.321	73.103	1.00	50.48	A
	ATOM	304	CG	LYS	39A	13.876	61.426	72.807	1.00	54.07	A
	ATOM	305	CD	LYS	39A	12.642	61.370	73.730	1.00	55.90	A
	ATOM	306	CE	LYS	39A	11.703	62.568	73.509	1.00	59.31	A
	ATOM	307	NZ	LYS	39A	10.401	62.464	74.213	1.00	59.16	A
20	ATOM	308	C	LYS	39A	16.961	60.842	71.761	1.00	47.69	A
	ATOM	309	O	LYS	39A	17.698	61.072	72.729	1.00	48.28	A
	ATOM	310	N	VAL	40A	17.219	61.296	70.531	1.00	44.36	A
	ATOM	311	CA	VAL	40A	18.369	62.148	70.235	1.00	40.79	A
	ATOM	312	CB	VAL	40A	19.148	61.584	69.023	1.00	40.02	A
25	ATOM	313	CG1	VAL	40A	20.298	62.505	68.645	1.00	36.38	A
	ATOM	314	CG2	VAL	40A	19.669	60.190	69.359	1.00	38.63	A
	ATOM	315	C	VAL	40A	17.998	63.607	69.959	1.00	41.51	A
	ATOM	316	O	VAL	40A	17.021	63.884	69.254	1.00	43.93	A
	ATOM	317	N	VAL	41A	18.778	64.532	70.522	1.00	39.22	A
30	ATOM	318	CA	VAL	41A	18.547	65.963	70.332	1.00	36.69	A
	ATOM	319	CB	VAL	41A	18.503	66.713	71.666	1.00	36.32	A
	ATOM	320	CG1	VAL	41A	18.182	68.179	71.421	1.00	34.53	A
	ATOM	321	CG2	VAL	41A	17.470	66.088	72.579	1.00	37.69	A
	ATOM	322	C	VAL	41A	19.638	66.598	69.475	1.00	37.00	A
35	ATOM	323	O	VAL	41A	20.828	66.439	69.745	1.00	36.96	A
	ATOM	324	N	ILE	42A	19.225	67.323	68.444	1.00	35.86	A
	ATOM	325	CA	ILE	42A	20.167	67.979	67.552	1.00	34.78	A
	ATOM	326	CB	ILE	42A	20.265	67.226	66.202	1.00	34.00	A
	ATOM	327	CG2	ILE	42A	21.169	67.986	65.235	1.00	30.30	A
40	ATOM	328	CG1	ILE	42A	20.788	65.805	66.445	1.00	33.29	A
	ATOM	329	CD	ILE	42A	20.975	64.985	65.190	1.00	34.69	A
	ATOM	330	C	ILE	42A	19.732	69.414	67.296	1.00	35.61	A
	ATOM	331	O	ILE	42A	18.545	69.684	67.113	1.00	36.59	A
	ATOM	332	N	HIS	43A	20.697	70.329	67.293	1.00	34.04	A
45	ATOM	333	CA	HIS	43A	20.427	71.738	67.055	1.00	34.68	A
	ATOM	334	CB	HIS	43A	21.184	72.594	68.074	1.00	35.70	A
	ATOM	335	CG	HIS	43A	20.833	72.297	69.499	1.00	38.93	A
	ATOM	336	CD2	HIS	43A	21.232	71.302	70.325	1.00	38.22	A
	ATOM	337	ND1	HIS	43A	19.966	73.080	70.232	1.00	39.36	A
50	ATOM	338	CE1	HIS	43A	19.847	72.581	71.449	1.00	37.96	A
	ATOM	339	NE2	HIS	43A	20.604	71.501	71.531	1.00	40.72	A
	ATOM	340	C	HIS	43A	20.893	72.111	65.648	1.00	34.97	A
	ATOM	341	O	HIS	43A	21.942	71.653	65.204	1.00	36.02	A
	ATOM	342	N	LEU	44A	20.121	72.943	64.953	1.00	33.80	A
55	ATOM	343	CA	LEU	44A	20.491	73.385	63.605	1.00	35.36	A
	ATOM	344	CB	LEU	44A	19.485	72.861	62.579	1.00	32.69	A
	ATOM	345	CG	LEU	44A	19.276	71.347	62.552	1.00	33.36	A
	ATOM	346	CD1	LEU	44A	18.261	70.994	61.468	1.00	30.07	A
	ATOM	347	CD2	LEU	44A	20.606	70.648	62.310	1.00	29.97	A

	ATOM	348	C	LEU	44A	20.521	74.915	63.570	1.00	35.65	A
	ATOM	349	O	LEU	44A	19.513	75.560	63.847	1.00	37.08	A
	ATOM	350	N	LYS	45A	22.103	75.383	63.042	1.00	37.12	A
	ATOM	351	CA	LYS	45A	21.862	76.820	63.229	1.00	38.23	A
5	ATOM	352	CB	LYS	45A	22.729	77.350	64.377	1.00	40.53	A
	ATOM	353	CG	LYS	45A	22.024	77.288	65.741	1.00	42.38	A
	ATOM	354	CD	LYS	45A	20.523	77.585	65.656	1.00	49.18	A
	ATOM	355	CE	LYS	45A	19.838	77.625	67.027	1.00	50.80	A
	ATOM	356	NZ	LYS	45A	20.251	78.776	67.844	1.00	53.90	A
10	ATOM	357	C	LYS	45A	22.198	77.590	61.932	1.00	39.78	A
	ATOM	358	O	LYS	45A	22.846	77.047	61.025	1.00	40.57	A
	ATOM	359	N	LYS	46A	21.721	78.825	61.941	1.00	41.85	A
	ATOM	360	CA	LYS	46A	21.850	79.830	60.847	1.00	41.90	A
	ATOM	361	CB	LYS	46A	22.911	80.868	61.191	1.00	44.97	A
15	ATOM	362	CG	LYS	46A	22.285	82.187	61.671	1.00	44.25	A
	ATOM	363	CD	LYS	46A	22.225	83.262	60.582	1.00	44.04	A
	ATOM	364	CE	LYS	46A	23.025	84.512	60.945	1.00	42.84	A
	ATOM	365	NZ	LYS	46A	24.436	84.222	61.234	1.00	44.73	A
	ATOM	366	C	LYS	46A	22.203	79.198	59.472	1.00	43.40	A
20	ATOM	367	O	LYS	46A	21.333	78.732	58.734	1.00	39.59	A
	ATOM	368	N	LEU	47A	23.475	79.183	59.108	1.00	44.56	A
	ATOM	369	CA	LEU	47A	23.882	78.632	57.787	1.00	40.21	A
	ATOM	370	CB	LEU	47A	25.200	79.255	57.332	1.00	38.90	A
	ATOM	371	CG	LEU	47A	24.997	80.644	56.718	1.00	38.34	A
25	ATOM	372	CD1	LEU	47A	25.923	80.925	55.534	1.00	39.88	A
	ATOM	373	CD2	LEU	47A	23.575	80.857	56.190	1.00	37.27	A
	ATOM	374	C	LEU	47A	24.045	77.114	57.844	1.00	39.50	A
	ATOM	375	O	LEU	47A	23.464	76.385	57.017	1.00	40.75	A
	ATOM	376	N	ASP	48A	24.668	76.295	58.023	1.00	35.83	A
30	ATOM	377	CA	ASP	48A	24.728	74.839	57.918	1.00	33.58	A
	ATOM	378	CB	ASP	48A	25.428	74.457	56.604	1.00	33.68	A
	ATOM	379	CG	ASP	48A	26.931	74.643	56.654	1.00	35.99	A
	ATOM	380	OD1	ASP	48A	27.413	75.539	57.371	1.00	38.09	A
	ATOM	381	OD2	ASP	48A	27.642	73.895	55.956	1.00	39.54	A
35	ATOM	382	C	ASP	48A	25.337	74.067	59.088	1.00	33.19	A
	ATOM	383	O	ASP	48A	25.853	72.970	58.909	1.00	32.13	A
	ATOM	384	N	THR	49A	25.248	74.622	60.291	1.00	34.69	A
	ATOM	385	CA	THR	49A	25.791	73.958	61.465	1.00	32.42	A
	ATOM	386	CB	THR	49A	26.366	74.977	62.466	1.00	33.29	A
40	ATOM	387	OG1	THR	49A	27.471	75.664	61.876	1.00	32.59	A
	ATOM	388	CG2	THR	49A	26.829	74.274	63.730	1.00	32.86	A
	ATOM	389	C	THR	49A	24.789	73.084	62.224	1.00	33.06	A
	ATOM	390	O	THR	49A	23.673	73.493	62.517	1.00	31.74	A
	ATOM	391	N	ALA	50A	25.215	71.870	62.545	1.00	34.39	A
45	ATOM	392	CA	ALA	50A	24.408	70.934	63.312	1.00	33.65	A
	ATOM	393	CB	ALA	50A	24.082	69.704	62.474	1.00	34.11	A
	ATOM	394	C	ALA	50A	25.278	70.544	64.502	1.00	34.28	A
	ATOM	395	O	ALA	50A	26.477	70.348	64.350	1.00	34.75	A
	ATOM	396	N	TYR	51A	24.697	70.447	65.687	1.00	34.63	A
50	ATOM	397	CA	TYR	51A	25.482	70.058	66.851	1.00	35.49	A
	ATOM	398	CB	TYR	51A	26.244	71.253	67.436	1.00	32.75	A
	ATOM	399	CG	TYR	51A	25.399	72.444	67.850	1.00	34.70	A
	ATOM	400	CD1	TYR	51A	25.042	73.425	66.924	1.00	34.16	A
	ATOM	401	CE1	TYR	51A	24.325	74.551	67.309	1.00	35.08	A
55	ATOM	402	CD2	TYR	51A	25.003	72.617	69.182	1.00	34.32	A
	ATOM	403	CE2	TYR	51A	24.281	73.739	69.581	1.00	33.74	A
	ATOM	404	CZ	TYR	51A	23.947	74.705	68.638	1.00	36.72	A
	ATOM	405	OH	TYR	51A	23.247	75.831	69.015	1.00	36.53	A
	ATOM	406	C	TYR	51A	24.640	69.420	67.932	1.00	35.70	A

	ATOM	407	O	TYR	51A	23.498	69.826	68.163	1.00	36.85	A
	ATOM	408	N	ASP	52A	25.203	68.405	68.580	1.00	35.40	A
	ATOM	409	CA	ASP	52A	24.508	67.718	69.659	1.00	35.51	A
	ATOM	410	CB	ASP	52A	25.062	66.303	69.864	1.00	34.31	A
5	ATOM	411	CG	ASP	52A	26.546	66.288	70.204	1.00	34.28	A
	ATOM	412	OD1	ASP	52A	27.064	67.293	70.735	1.00	36.05	A
	ATOM	413	OD2	ASP	52A	27.193	65.253	69.951	1.00	33.44	A
	ATOM	414	C	ASP	52A	24.703	68.545	70.917	1.00	35.88	A
	ATOM	415	O	ASP	52A	25.069	69.713	70.838	1.00	37.26	A
10	ATOM	416	N	GLU	53A	24.477	67.948	72.079	1.00	39.55	A
	ATOM	417	CA	GLU	53A	24.630	68.690	73.324	1.00	41.98	A
	ATOM	418	CB	GLU	53A	23.490	68.362	74.276	1.00	44.69	A
	ATOM	419	CG	GLU	53A	22.481	69.489	74.356	1.00	50.39	A
	ATOM	420	CD	GLU	53A	21.092	69.002	74.085	1.00	54.04	A
15	ATOM	421	OE1	GLU	53A	20.172	69.851	73.996	1.00	55.71	A
	ATOM	422	OE2	GLU	53A	20.930	67.761	73.959	1.00	55.68	A
	ATOM	423	C	GLU	53A	25.944	68.516	74.053	1.00	40.50	A
	ATOM	424	O	GLU	53A	26.191	69.195	75.043	1.00	40.73	A
	ATOM	425	N	VAL	54A	26.792	67.623	73.564	1.00	39.75	A
20	ATOM	426	CA	VAL	54A	28.069	67.390	74.215	1.00	39.48	A
	ATOM	427	CB	VAL	54A	28.273	65.890	74.478	1.00	40.36	A
	ATOM	428	CG1	VAL	54A	27.243	65.412	75.513	1.00	38.06	A
	ATOM	429	CG2	VAL	54A	28.123	65.101	73.185	1.00	38.84	A
	ATOM	430	C	VAL	54A	29.265	67.948	73.459	1.00	40.26	A
25	ATOM	431	O	VAL	54A	30.312	67.313	73.391	1.00	41.88	A
	ATOM	432	N	GLY	55A	29.097	69.137	72.886	1.00	41.13	A
	ATOM	433	CA	GLY	55A	30.177	69.782	72.160	1.00	40.80	A
	ATOM	434	C	GLY	55A	30.569	69.292	70.772	1.00	40.97	A
	ATOM	435	O	GLY	55A	31.606	69.716	70.260	1.00	41.71	A
30	ATOM	436	N	ASN	56A	29.772	68.426	70.151	1.00	39.30	A
	ATOM	437	CA	ASN	56A	30.110	67.935	68.814	1.00	38.72	A
	ATOM	438	CB	ASN	56A	29.770	66.451	68.701	1.00	38.26	A
	ATOM	439	CG	ASN	56A	30.545	65.602	69.688	1.00	37.24	A
	ATOM	440	OD1	ASN	56A	31.772	65.580	69.672	1.00	37.37	A
35	ATOM	441	ND2	ASN	56A	29.830	64.897	70.553	1.00	36.12	A
	ATOM	442	C	ASN	56A	29.411	68.714	67.691	1.00	39.16	A
	ATOM	443	O	ASN	56A	28.204	68.964	67.754	1.00	40.18	A
	ATOM	444	N	SER	57A	30.184	69.081	66.667	1.00	37.33	A
	ATOM	445	CA	SER	57A	29.693	69.840	65.513	1.00	36.98	A
40	ATOM	446	CB	SER	57A	30.705	70.905	65.078	1.00	38.22	A
	ATOM	447	OG	SER	57A	30.769	71.986	65.976	1.00	45.46	A
	ATOM	448	C	SER	57A	29.432	68.964	64.303	1.00	35.80	A
	ATOM	449	O	SER	57A	30.049	67.914	64.136	1.00	34.15	A
	ATOM	450	N	GLY	58A	28.544	69.445	63.440	1.00	35.45	A
45	ATOM	451	CA	GLY	58A	28.188	68.727	62.232	1.00	33.47	A
	ATOM	452	C	GLY	58A	27.623	69.640	61.158	1.00	34.21	A
	ATOM	453	O	GLY	58A	27.700	70.870	61.246	1.00	33.05	A
	ATOM	454	N	TYR	59A	27.018	69.030	60.151	1.00	33.15	A
	ATOM	455	CA	TYR	59A	26.460	69.767	59.034	1.00	33.03	A
50	ATOM	456	CB	TYR	59A	27.368	69.529	57.829	1.00	38.33	A
	ATOM	457	CG	TYR	59A	26.658	69.391	56.512	1.00	43.85	A
	ATOM	458	CD1	TYR	59A	26.396	70.508	55.716	1.00	48.03	A
	ATOM	459	CE1	TYR	59A	25.712	70.383	54.505	1.00	50.47	A
	ATOM	460	CD2	TYR	59A	26.223	68.146	56.071	1.00	46.11	A
55	ATOM	461	CE2	TYR	59A	25.541	68.004	54.872	1.00	49.61	A
	ATOM	462	CZ	TYR	59A	25.286	69.124	54.088	1.00	51.22	A
	ATOM	463	OH	TYR	59A	24.611	68.982	52.888	1.00	51.39	A
	ATOM	464	C	TYR	59A	25.023	69.354	58.725	1.00	32.66	A
	ATOM	465	O	TYR	59A	24.567	68.293	59.151	1.00	31.29	A

	ATOM	466	N	PHE	60A	24.311	70.205	57.993	1.00	31.38	A
	ATOM	467	CA	PHE	60A	22.936	69.916	57.593	1.00	32.31	A
	ATOM	468	CB	PHE	60A	21.961	70.222	58.742	1.00	30.22	A
	ATOM	469	CG	PHE	60A	21.562	71.674	58.838	1.00	29.18	A
5	ATOM	470	CD1	PHE	60A	20.603	72.210	57.975	1.00	31.18	A
	ATOM	471	CD2	PHE	60A	22.163	72.515	59.772	1.00	27.77	A
	ATOM	472	CE1	PHE	60A	20.249	73.564	58.041	1.00	31.86	A
	ATOM	473	CE2	PHE	60A	21.820	73.866	59.848	1.00	29.71	A
	ATOM	474	CZ	PHE	60A	20.862	74.394	58.983	1.00	32.51	A
10	ATOM	475	C	PHE	60A	22.575	70.767	56.374	1.00	34.26	A
	ATOM	476	O	PHE	60A	23.216	71.784	56.110	1.00	33.77	A
	ATOM	477	N	THR	61A	21.561	70.345	55.622	1.00	34.13	A
	ATOM	478	CA	THR	61A	21.101	71.127	54.480	1.00	33.73	A
	ATOM	479	CB	THR	61A	21.837	70.778	53.156	1.00	34.96	A
15	ATOM	480	OG1	THR	61A	21.396	71.670	52.119	1.00	34.95	A
	ATOM	481	CG2	THR	61A	21.525	69.350	52.713	1.00	32.00	A
	ATOM	482	C	THR	61A	19.620	70.905	54.235	1.00	33.68	A
	ATOM	483	O	THR	61A	19.098	69.818	54.465	1.00	34.70	A
	ATOM	484	N	LEU	62A	18.939	71.953	53.801	1.00	34.77	A
20	ATOM	485	CA	LEU	62A	17.535	71.831	53.447	1.00	35.68	A
	ATOM	486	CB	LEU	62A	16.893	73.218	53.340	1.00	35.08	A
	ATOM	487	CG	LEU	62A	15.443	73.333	52.862	1.00	34.88	A
	ATOM	488	CD1	LEU	62A	14.505	72.726	53.897	1.00	33.54	A
	ATOM	489	CD2	LEU	62A	15.101	74.796	52.636	1.00	33.50	A
25	ATOM	490	C	LEU	62A	17.562	71.172	52.054	1.00	37.05	A
	ATOM	491	O	LEU	62A	18.506	71.376	51.273	1.00	37.53	A
	ATOM	492	N	ILE	63A	16.558	70.361	51.752	1.00	36.52	A
	ATOM	493	CA	ILE	63A	16.479	69.724	50.443	1.00	36.16	A
	ATOM	494	CB	ILE	63A	16.302	68.211	50.578	1.00	37.06	A
30	ATOM	495	CG2	ILE	63A	16.139	67.584	49.198	1.00	35.15	A
	ATOM	496	CG1	ILE	63A	17.502	67.629	51.331	1.00	37.31	A
	ATOM	497	CD	ILE	63A	17.342	66.176	51.731	1.00	38.29	A
	ATOM	498	C	ILE	63A	15.257	70.335	49.770	1.00	36.09	A
	ATOM	499	O	ILE	63A	14.138	69.872	49.972	1.00	35.38	A
35	ATOM	500	N	TYR	64A	15.484	71.389	48.985	1.00	36.69	A
	ATOM	501	CA	TYR	64A	14.412	72.121	48.301	1.00	35.77	A
	ATOM	502	CB	TYR	64A	13.760	71.253	47.216	1.00	34.91	A
	ATOM	503	CG	TYR	64A	12.816	72.025	46.318	1.00	35.87	A
	ATOM	504	CD1	TYR	64A	13.265	73.122	45.580	1.00	36.49	A
40	ATOM	505	CE1	TYR	64A	12.398	73.844	44.759	1.00	37.20	A
	ATOM	506	CD2	TYR	64A	11.472	71.668	46.213	1.00	37.20	A
	ATOM	507	CE2	TYR	64A	10.596	72.378	45.397	1.00	38.56	A
	ATOM	508	CZ	TYR	64A	11.066	73.464	44.672	1.00	39.87	A
	ATOM	509	OH	TYR	64A	10.209	74.155	43.848	1.00	41.82	A
45	ATOM	510	C	TYR	64A	13.368	72.577	49.335	1.00	35.39	A
	ATOM	511	O	TYR	64A	13.635	73.497	50.114	1.00	36.07	A
	ATOM	512	N	ASN	65A	12.191	71.949	49.343	1.00	33.98	A
	ATOM	513	CA	ASN	65A	11.144	72.290	50.314	1.00	35.01	A
	ATOM	514	CB	ASN	65A	10.048	73.157	49.665	1.00	34.00	A
50	ATOM	515	CG	ASN	65A	9.213	72.394	48.633	1.00	33.67	A
	ATOM	516	OD1	ASN	65A	9.361	71.181	48.453	1.00	30.98	A
	ATOM	517	ND2	ASN	65A	8.324	73.111	47.958	1.00	30.42	A
	ATOM	518	C	ASN	65A	10.522	71.000	50.844	1.00	34.65	A
	ATOM	519	O	ASN	65A	9.468	71.013	51.486	1.00	33.16	A
55	ATOM	520	N	GLN	66A	11.213	69.896	50.571	1.00	35.63	A
	ATOM	521	CA	GLN	66A	10.781	68.545	50.913	1.00	34.74	A
	ATOM	522	CB	GLN	66A	11.260	67.607	49.810	1.00	35.48	A
	ATOM	523	CG	GLN	66A	10.781	68.008	48.424	1.00	37.74	A
	ATOM	524	CD	GLN	66A	9.379	67.515	48.142	1.00	39.36	A

	ATOM	525	OE1	GLN	66A	9.143	66.308	48.067	1.00	37.74	A
	ATOM	526	NE2	GLN	66A	8.438	68.444	47.994	1.00	40.23	A
	ATOM	527	C	GLN	66A	11.212	67.981	52.259	1.00	34.24	A
	ATOM	528	O	GLN	66A	10.410	67.396	52.973	1.00	34.69	A
5	ATOM	529	N	GLY	67A	12.488	68.130	52.585	1.00	35.10	A
	ATOM	530	CA	GLY	67A	13.000	67.604	53.835	1.00	33.77	A
	ATOM	531	C	GLY	67A	14.393	68.130	54.103	1.00	35.01	A
	ATOM	532	O	GLY	67A	14.749	69.218	53.647	1.00	34.04	A
	ATOM	533	N	PHE	68A	15.196	67.351	54.819	1.00	33.97	A
10	ATOM	534	CA	PHE	68A	16.547	67.785	55.150	1.00	35.94	A
	ATOM	535	CB	PHE	68A	16.497	68.674	56.390	1.00	36.57	A
	ATOM	536	CG	PHE	68A	15.957	67.970	57.598	1.00	37.62	A
	ATOM	537	CD1	PHE	68A	14.605	68.034	57.913	1.00	39.82	A
	ATOM	538	CD2	PHE	68A	16.788	67.186	58.392	1.00	40.59	A
15	ATOM	539	CE1	PHE	68A	14.087	67.328	58.997	1.00	39.10	A
	ATOM	540	CE2	PHE	68A	16.275	66.474	59.480	1.00	41.25	A
	ATOM	541	CZ	PHE	68A	14.924	66.548	59.780	1.00	39.41	A
	ATOM	542	C	PHE	68A	17.479	66.615	55.447	1.00	34.86	A
	ATOM	543	O	PHE	68A	17.025	65.514	55.751	1.00	35.84	A
20	ATOM	544	N	GLU	69A	18.782	66.855	55.349	1.00	33.32	A
	ATOM	545	CA	GLU	69A	19.756	65.828	55.696	1.00	32.23	A
	ATOM	546	CB	GLU	69A	20.550	65.328	54.494	1.00	30.52	A
	ATOM	547	CG	GLU	69A	21.466	64.182	54.897	1.00	30.24	A
	ATOM	548	CD	GLU	69A	22.253	63.583	53.751	1.00	33.08	A
25	ATOM	549	OE1	GLU	69A	23.112	64.287	53.173	1.00	31.99	A
	ATOM	550	OE2	GLU	69A	22.014	62.398	53.433	1.00	33.81	A
	ATOM	551	C	GLU	69A	20.730	66.388	56.722	1.00	32.02	A
	ATOM	552	O	GLU	69A	21.233	67.507	56.578	1.00	32.21	A
	ATOM	553	N	ILE	70A	20.985	65.609	57.764	1.00	31.77	A
30	ATOM	554	CA	ILE	70A	21.915	66.017	58.809	1.00	31.09	A
	ATOM	555	CB	ILE	70A	21.235	66.104	60.194	1.00	30.01	A
	ATOM	556	CG2	ILE	70A	22.268	66.495	61.243	1.00	30.54	A
	ATOM	557	CG1	ILE	70A	20.084	67.110	60.174	1.00	29.32	A
	ATOM	558	CD	ILE	70A	19.289	67.139	61.460	1.00	23.21	A
35	ATOM	559	C	ILE	70A	23.039	64.997	58.932	1.00	31.52	A
	ATOM	560	O	ILE	70A	22.786	63.795	58.996	1.00	31.06	A
	ATOM	561	N	VAL	71A	24.279	65.475	58.947	1.00	31.11	A
	ATOM	562	CA	VAL	71A	25.426	64.592	59.111	1.00	32.10	A
	ATOM	563	CB	VAL	71A	26.381	64.651	57.909	1.00	32.27	A
40	ATOM	564	CG1	VAL	71A	27.549	63.691	58.136	1.00	32.02	A
	ATOM	565	CG2	VAL	71A	25.638	64.273	56.640	1.00	31.98	A
	ATOM	566	C	VAL	71A	26.135	65.077	60.369	1.00	32.86	A
	ATOM	567	O	VAL	71A	26.735	66.141	60.385	1.00	33.28	A
	ATOM	568	N	LEU	72A	26.037	64.287	61.427	1.00	33.70	A
45	ATOM	569	CA	LEU	72A	26.618	64.627	62.712	1.00	33.37	A
	ATOM	570	CB	LEU	72A	25.575	65.382	63.535	1.00	32.53	A
	ATOM	571	CG	LEU	72A	25.906	65.775	64.968	1.00	32.64	A
	ATOM	572	CD1	LEU	72A	27.082	66.741	64.975	1.00	31.36	A
	ATOM	573	CD2	LEU	72A	24.679	66.411	65.606	1.00	31.51	A
50	ATOM	574	C	LEU	72A	27.018	63.342	63.424	1.00	34.48	A
	ATOM	575	O	LEU	72A	26.306	62.348	63.352	1.00	35.76	A
	ATOM	576	N	ASN	73A	28.158	63.367	64.109	1.00	35.95	A
	ATOM	577	CA	ASN	73A	28.659	62.197	64.827	1.00	34.85	A
	ATOM	578	CB	ASN	73A	27.813	61.933	66.072	1.00	34.75	A
55	ATOM	579	CG	ASN	73A	27.934	63.041	67.093	1.00	35.52	A
	ATOM	580	OD1	ASN	73A	29.034	63.488	67.399	1.00	36.76	A
	ATOM	581	ND2	ASN	73A	26.806	63.488	67.629	1.00	33.15	A
	ATOM	582	C	ASN	73A	28.702	60.948	63.950	1.00	34.88	A
	ATOM	583	O	ASN	73A	28.376	59.847	64.392	1.00	34.38	A

	ATOM	584	N	ASP	74A	29.123	61.136	62.703	1.00	35.59	A
	ATOM	585	CA	ASP	74A	29.231	60.054	61.733	1.00	34.82	A
	ATOM	586	CB	ASP	74A	30.308	59.062	62.159	1.00	35.59	A
	ATOM	587	CG	ASP	74A	31.699	59.566	61.853	1.00	34.88	A
5	ATOM	588	OD1	ASP	74A	31.863	60.171	60.779	1.00	33.21	A
	ATOM	589	OD2	ASP	74A	32.619	59.350	62.668	1.00	36.74	A
	ATOM	590	C	ASP	74A	27.933	59.323	61.438	1.00	34.33	A
	ATOM	591	O	ASP	74A	27.924	58.131	61.131	1.00	32.04	A
	ATOM	592	N	TYR	75A	26.835	60.060	61.539	1.00	34.42	A
10	ATOM	593	CA	TYR	75A	25.525	59.524	61.237	1.00	33.61	A
	ATOM	594	CB	TYR	75A	24.689	59.321	62.502	1.00	33.31	A
	ATOM	595	CG	TYR	75A	25.024	58.039	63.232	1.00	36.58	A
	ATOM	596	CD1	TYR	75A	25.909	58.037	64.317	1.00	33.13	A
	ATOM	597	CE1	TYR	75A	26.264	56.856	64.955	1.00	35.14	A
15	ATOM	598	CD2	TYR	75A	24.496	56.816	62.805	1.00	34.19	A
	ATOM	599	CE2	TYR	75A	24.849	55.621	63.436	1.00	37.25	A
	ATOM	600	CZ	TYR	75A	25.735	55.650	64.512	1.00	38.32	A
	ATOM	601	OH	TYR	75A	26.099	54.472	65.135	1.00	39.25	A
	ATOM	602	C	TYR	75A	24.823	60.492	60.314	1.00	32.51	A
20	ATOM	603	O	TYR	75A	24.898	61.700	60.498	1.00	34.66	A
	ATOM	604	N	LYS	76A	24.167	59.953	59.298	1.00	32.16	A
	ATOM	605	CA	LYS	76A	23.422	60.769	58.364	1.00	31.29	A
	ATOM	606	CB	LYS	76A	23.739	60.368	56.921	1.00	28.63	A
	ATOM	607	CG	LYS	76A	25.179	60.613	56.519	1.00	26.38	A
25	ATOM	608	CD	LYS	76A	25.355	60.512	55.023	1.00	27.45	A
	ATOM	609	CE	LYS	76A	26.772	60.840	54.603	1.00	26.33	A
	ATOM	610	NZ	LYS	76A	26.850	61.052	53.139	1.00	28.04	A
	ATOM	611	C	LYS	76A	21.942	60.558	58.662	1.00	33.70	A
	ATOM	612	O	LYS	76A	21.474	59.424	58.746	1.00	33.28	A
30	ATOM	613	N	TRP	77A	21.221	61.655	58.865	1.00	35.54	A
	ATOM	614	CA	TRP	77A	19.792	61.591	59.138	1.00	36.00	A
	ATOM	615	CB	TRP	77A	19.401	62.365	60.409	1.00	36.13	A
	ATOM	616	CG	TRP	77A	20.155	62.041	61.666	1.00	37.52	A
	ATOM	617	CD2	TRP	77A	19.619	61.444	62.856	1.00	37.97	A
35	ATOM	618	CE2	TRP	77A	20.656	61.426	63.816	1.00	38.05	A
	ATOM	619	CE3	TRP	77A	18.360	60.926	63.204	1.00	39.70	A
	ATOM	620	CD1	TRP	77A	21.457	62.342	61.941	1.00	34.97	A
	ATOM	621	NE1	TRP	77A	21.763	61.982	63.232	1.00	39.36	A
	ATOM	622	CZ2	TRP	77A	20.480	60.910	65.105	1.00	39.78	A
40	ATOM	623	CZ3	TRP	77A	18.178	60.413	64.485	1.00	41.32	A
	ATOM	624	CH2	TRP	77A	19.238	60.410	65.425	1.00	43.28	A
	ATOM	625	C	TRP	77A	19.063	62.245	57.979	1.00	37.11	A
	ATOM	626	O	TRP	77A	19.456	63.315	57.499	1.00	35.79	A
	ATOM	627	N	PHE	78A	17.998	61.598	57.537	1.00	37.08	A
45	ATOM	628	CA	PHE	78A	17.189	62.141	56.472	1.00	38.94	A
	ATOM	629	CB	PHE	78A	17.615	61.596	55.112	1.00	38.02	A
	ATOM	630	CG	PHE	78A	16.576	61.807	54.053	1.00	38.34	A
	ATOM	631	CD1	PHE	78A	16.184	63.093	53.702	1.00	37.23	A
	ATOM	632	CD2	PHE	78A	15.914	60.726	53.484	1.00	39.26	A
50	ATOM	633	CE1	PHE	78A	15.148	63.305	52.809	1.00	37.38	A
	ATOM	634	CE2	PHE	78A	14.871	60.924	52.586	1.00	40.13	A
	ATOM	635	CZ	PHE	78A	14.485	62.218	52.249	1.00	39.92	A
	ATOM	636	C	PHE	78A	15.708	61.817	56.690	1.00	40.06	A
	ATOM	637	O	PHE	78A	15.348	60.725	57.149	1.00	39.19	A
55	ATOM	638	N	ALA	79A	14.853	62.773	56.339	1.00	39.24	A
	ATOM	639	CA	ALA	79A	13.417	62.594	56.465	1.00	38.82	A
	ATOM	640	CB	ALA	79A	12.996	62.650	57.950	1.00	36.80	A
	ATOM	641	C	ALA	79A	12.706	63.685	55.691	1.00	37.17	A
	ATOM	642	O	ALA	79A	13.225	64.790	55.567	1.00	35.18	A

	ATOM	643	N	PHE	80A	11.534	63.356	55.150	1.00	38.42	A
	ATOM	644	CA	PHE	80A	10.707	64.328	54.443	1.00	36.14	A
	ATOM	645	CB	PHE	80A	9.774	63.639	53.442	1.00	35.01	A
	ATOM	646	CG	PHE	80A	10.464	63.118	52.215	1.00	32.12	A
5	ATOM	647	CD1	PHE	80A	10.564	61.748	51.985	1.00	33.44	A
	ATOM	648	CD2	PHE	80A	10.984	63.993	51.268	1.00	31.48	A
	ATOM	649	CE1	PHE	80A	11.171	61.250	50.824	1.00	31.32	A
	ATOM	650	CE2	PHE	80A	11.594	63.512	50.104	1.00	31.32	A
	ATOM	651	CZ	PHE	80A	11.686	62.135	49.883	1.00	31.85	A
10	ATOM	652	C	PHE	80A	9.869	64.990	55.541	1.00	36.13	A
	ATOM	653	O	PHE	80A	9.624	64.388	56.593	1.00	35.42	A
	ATOM	654	N	PHE	81A	9.446	66.230	55.309	1.00	36.65	A
	ATOM	655	CA	PHE	81A	8.632	66.959	56.296	1.00	38.86	A
	ATOM	656	CB	PHE	81A	8.494	68.421	55.881	1.00	38.89	A
15	ATOM	657	CG	PHE	81A	9.717	69.260	56.204	1.00	37.80	A
	ATOM	658	CD1	PHE	81A	10.576	69.664	55.182	1.00	37.44	A
	ATOM	659	CD2	PHE	81A	9.980	69.630	57.523	1.00	35.62	A
	ATOM	660	CE1	PHE	81A	11.695	70.445	55.478	1.00	38.03	A
	ATOM	661	CE2	PHE	81A	11.097	70.412	57.821	1.00	36.54	A
20	ATOM	662	CZ	PHE	81A	11.955	70.821	56.799	1.00	38.97	A
	ATOM	663	C	PHE	81A	7.234	66.339	56.389	1.00	38.77	A
	ATOM	664	O	PHE	81A	6.715	65.791	55.418	1.00	39.84	A
	ATOM	665	N	LYS	82A	6.634	66.447	57.584	1.00	39.16	A
	ATOM	666	CA	LYS	82A	5.293	65.879	57.805	1.00	39.63	A
25	ATOM	667	CB	LYS	82A	4.919	65.882	59.295	1.00	39.47	A
	ATOM	668	CG	LYS	82A	3.893	64.738	59.629	1.00	40.54	A
	ATOM	669	CD	LYS	82A	3.379	64.831	61.011	1.00	44.88	A
	ATOM	670	CE	LYS	82A	1.989	64.392	61.504	1.00	45.44	A
	ATOM	671	NZ	LYS	82A	2.065	63.196	62.377	1.00	45.43	A
30	ATOM	672	C	LYS	82A	4.234	66.687	57.048	1.00	40.84	A
	ATOM	673	O	LYS	82A	4.256	67.924	57.033	1.00	41.13	A
	ATOM	674	N	TYR	83A	3.313	65.979	56.427	1.00	40.99	A
	ATOM	675	CA	TYR	83A	2.244	66.636	55.669	1.00	40.95	A
	ATOM	676	CB	TYR	83A	2.675	66.800	54.210	1.00	39.67	A
35	ATOM	677	CG	TYR	83A	2.910	65.472	53.507	1.00	40.75	A
	ATOM	678	CD1	TYR	83A	1.838	64.782	52.947	1.00	40.79	A
	ATOM	679	CE1	TYR	83A	2.043	63.558	52.312	1.00	40.62	A
	ATOM	680	CD2	TYR	83A	4.195	64.936	53.421	1.00	39.70	A
	ATOM	681	CE2	TYR	83A	4.403	63.710	52.789	1.00	41.68	A
40	ATOM	682	CZ	TYR	83A	3.326	63.019	52.236	1.00	42.16	A
	ATOM	683	OH	TYR	83A	3.522	61.812	51.625	1.00	41.02	A
	ATOM	684	C	TYR	83A	0.950	65.818	55.735	1.00	40.59	A
	ATOM	685	O	TYR	83A	0.971	64.601	55.938	1.00	40.43	A
	ATOM	686	N	GLU	84A	-0.181	66.511	55.604	1.00	41.04	A
45	ATOM	687	CA	GLU	84A	-1.498	65.881	55.619	1.00	41.84	A
	ATOM	688	CB	GLU	84A	-2.334	66.391	56.796	1.00	44.34	A
	ATOM	689	CG	GLU	84A	-3.782	65.892	56.784	1.00	49.23	A
	ATOM	690	CD	GLU	84A	-4.677	66.638	57.765	1.00	52.74	A
	ATOM	691	OE1	GLU	84A	-4.250	66.822	58.930	1.00	54.27	A
50	ATOM	692	OE2	GLU	84A	-5.811	67.033	57.378	1.00	54.69	A
	ATOM	693	C	GLU	84A	-2.208	66.245	54.316	1.00	40.03	A
	ATOM	694	O	GLU	84A	-2.415	67.422	54.024	1.00	39.14	A
	ATOM	695	N	VAL	85A	-2.582	65.245	53.532	1.00	39.37	A
	ATOM	696	CA	VAL	85A	-3.261	65.526	52.281	1.00	40.47	A
55	ATOM	697	CB	VAL	85A	-3.154	64.350	51.308	1.00	40.13	A
	ATOM	698	CG1	VAL	85A	-3.952	64.657	50.043	1.00	37.58	A
	ATOM	699	CG2	VAL	85A	-1.688	64.081	50.987	1.00	36.90	A
	ATOM	700	C	VAL	85A	-4.738	65.848	52.490	1.00	42.17	A
	ATOM	701	O	VAL	85A	-5.438	65.139	53.215	1.00	41.84	A

	ATOM	702	N	LYS	86A	-5.182	66.937	51.860	1.00	42.56	A
	ATOM	703	CA	LYS	86A	-6.567	67.405	51.912	1.00	43.52	A
	ATOM	704	CB	LYS	86A	-6.650	68.780	52.593	1.00	43.92	A
	ATOM	705	CG	LYS	86A	-6.228	68.824	54.069	1.00	45.54	A
5	ATOM	706	CD	LYS	86A	-7.429	68.745	55.022	1.00	43.64	A
	ATOM	707	CE	LYS	86A	-8.269	67.492	54.783	1.00	44.32	A
	ATOM	708	NZ	LYS	86A	-7.476	66.238	54.915	1.00	44.91	A
	ATOM	709	C	LYS	86A	-7.008	67.545	50.449	1.00	45.49	A
	ATOM	710	O	LYS	86A	-7.022	68.654	49.896	1.00	45.85	A
10	ATOM	711	N	GLY	87A	-7.349	66.431	49.812	1.00	45.28	A
	ATOM	712	CA	GLY	87A	-7.747	66.503	48.417	1.00	45.57	A
	ATOM	713	C	GLY	87A	-6.574	66.767	47.480	1.00	46.67	A
	ATOM	714	O	GLY	87A	-5.613	65.995	47.433	1.00	47.07	A
	ATOM	715	N	SER	88A	-6.639	67.862	46.729	1.00	48.07	A
15	ATOM	716	CA	SER	88A	-5.568	68.181	45.787	1.00	49.55	A
	ATOM	717	CB	SER	88A	-6.131	68.874	44.542	1.00	48.09	A
	ATOM	718	OG	SER	88A	-6.404	70.237	44.817	1.00	52.48	A
	ATOM	719	C	SER	88A	-4.516	69.078	46.429	1.00	49.64	A
	ATOM	720	O	SER	88A	-3.492	69.398	45.808	1.00	49.19	A
20	ATOM	721	N	ARG	89A	-4.789	69.505	47.660	1.00	49.72	A
	ATOM	722	CA	ARG	89A	-3.861	70.345	48.407	1.00	48.68	A
	ATOM	723	CB	ARG	89A	-4.560	71.592	48.953	1.00	50.86	A
	ATOM	724	CG	ARG	89A	-5.030	72.590	47.900	1.00	52.86	A
	ATOM	725	CD	ARG	89A	-3.903	73.030	46.967	1.00	54.79	A
25	ATOM	726	NE	ARG	89A	-4.091	74.417	46.542	1.00	56.51	A
	ATOM	727	CZ	ARG	89A	-3.745	75.475	47.277	1.00	57.37	A
	ATOM	728	NH1	ARG	89A	-3.178	75.304	48.469	1.00	56.45	A
	ATOM	729	NH2	ARG	89A	-4.001	76.704	46.843	1.00	57.89	A
	ATOM	730	C	ARG	89A	-3.335	69.515	49.566	1.00	48.17	A
30	ATOM	731	O	ARG	89A	-3.507	68.289	49.590	1.00	48.21	A
	ATOM	732	N	ALA	90A	-2.695	70.178	50.527	1.00	46.72	A
	ATOM	733	CA	ALA	90A	-2.149	69.490	51.693	1.00	44.65	A
	ATOM	734	CB	ALA	90A	-0.982	68.609	51.275	1.00	44.08	A
	ATOM	735	C	ALA	90A	-1.692	70.475	52.761	1.00	43.04	A
35	ATOM	736	O	ALA	90A	-1.370	71.625	52.456	1.00	41.51	A
	ATOM	737	N	ILE	91A	-1.688	70.025	54.014	1.00	42.02	A
	ATOM	738	CA	ILE	91A	-1.227	70.854	55.131	1.00	41.76	A
	ATOM	739	CB	ILE	91A	-2.128	70.697	56.374	1.00	40.76	A
	ATOM	740	CG2	ILE	91A	-1.539	71.485	57.542	1.00	39.10	A
40	ATOM	741	CG1	ILE	91A	-3.539	71.188	56.061	1.00	40.98	A
	ATOM	742	CD	ILE	91A	-4.511	71.037	57.216	1.00	40.71	A
	ATOM	743	C	ILE	91A	0.199	70.424	55.513	1.00	40.39	A
	ATOM	744	O	ILE	91A	0.467	69.239	55.691	1.00	40.05	A
	ATOM	745	N	SER	92A	1.111	71.381	55.633	1.00	40.51	A
45	ATOM	746	CA	SER	92A	2.491	71.055	55.996	1.00	40.78	A
	ATOM	747	CB	SER	92A	3.479	71.897	55.186	1.00	38.14	A
	ATOM	748	OG	SER	92A	3.480	71.540	53.821	1.00	35.99	A
	ATOM	749	C	SER	92A	2.759	71.286	57.478	1.00	41.54	A
	ATOM	750	O	SER	92A	2.463	72.355	58.009	1.00	42.68	A
50	ATOM	751	N	TYR	93A	3.301	70.273	58.142	1.00	41.16	A
	ATOM	752	CA	TYR	93A	3.659	70.384	59.555	1.00	40.72	A
	ATOM	753	CB	TYR	93A	3.125	69.181	60.343	1.00	41.96	A
	ATOM	754	CG	TYR	93A	1.613	69.069	60.307	1.00	44.64	A
	ATOM	755	CD1	TYR	93A	0.972	68.233	59.384	1.00	46.34	A
55	ATOM	756	CE1	TYR	93A	-0.428	68.165	59.313	1.00	46.11	A
	ATOM	757	CD2	TYR	93A	0.816	69.839	61.163	1.00	45.31	A
	ATOM	758	CE2	TYR	93A	-0.583	69.785	61.101	1.00	45.89	A
	ATOM	759	CZ	TYR	93A	-1.201	68.945	60.175	1.00	48.13	A
	ATOM	760	OH	TYR	93A	-2.585	68.874	60.120	1.00	46.00	A

	ATOM	761	C	TYR	93A	5.187	70.394	59.520	1.00	40.66	A
	ATOM	762	O	TYR	93A	5.837	69.368	59.740	1.00	39.98	A
	ATOM	763	N	CYS	94A	5.738	71.569	59.218	1.00	38.64	A
	ATOM	764	CA	CYS	94A	7.171	71.777	59.059	1.00	37.73	A
5	ATOM	765	C	CYS	94A	8.050	71.666	60.307	1.00	39.66	A
	ATOM	766	O	CYS	94A	9.275	71.873	60.247	1.00	35.82	A
	ATOM	767	CB	CYS	94A	7.398	73.123	58.377	1.00	36.43	A
	ATOM	768	SG	CYS	94A	6.563	73.266	56.759	1.00	39.15	A
	ATOM	769	N	HIS	95A	7.431	71.348	61.438	1.00	38.63	A
10	ATOM	770	CA	HIS	95A	8.181	71.179	62.669	1.00	39.42	A
	ATOM	771	CB	HIS	95A	7.578	72.018	63.796	1.00	40.91	A
	ATOM	772	CG	HIS	95A	7.785	73.489	63.622	1.00	43.86	A
	ATOM	773	CD2	HIS	95A	8.349	74.198	62.614	1.00	45.44	A
	ATOM	774	ND1	HIS	95A	7.394	74.413	64.568	1.00	45.86	A
15	ATOM	775	CE1	HIS	95A	7.708	75.629	64.151	1.00	45.81	A
	ATOM	776	NE2	HIS	95A	8.288	75.527	62.968	1.00	46.74	A
	ATOM	777	C	HIS	95A	8.167	69.707	63.029	1.00	38.27	A
	ATOM	778	O	HIS	95A	8.562	69.315	64.121	1.00	38.98	A
	ATOM	779	N	GLU	96A	7.709	68.892	62.088	1.00	37.66	A
20	ATOM	780	CA	GLU	96A	7.655	67.449	62.274	1.00	37.52	A
	ATOM	781	CB	GLU	96A	6.224	67.006	62.557	1.00	39.24	A
	ATOM	782	CG	GLU	96A	5.789	67.246	63.989	1.00	41.81	A
	ATOM	783	CD	GLU	96A	4.329	66.919	64.217	1.00	42.38	A
	ATOM	784	OE1	GLU	96A	3.484	67.835	64.071	1.00	42.36	A
25	ATOM	785	OE2	GLU	96A	4.034	65.743	64.531	1.00	41.56	A
	ATOM	786	C	GLU	96A	8.159	66.774	61.017	1.00	36.92	A
	ATOM	787	O	GLU	96A	8.368	67.430	60.002	1.00	38.19	A
	ATOM	788	N	THR	97A	8.355	65.462	61.074	1.00	37.24	A
	ATOM	789	CA	THR	97A	8.831	64.738	59.906	1.00	37.23	A
30	ATOM	790	CB	THR	97A	10.312	64.309	60.053	1.00	36.05	A
	ATOM	791	OG1	THR	97A	10.386	63.120	60.848	1.00	32.20	A
	ATOM	792	CG2	THR	97A	11.131	65.403	60.713	1.00	34.02	A
	ATOM	793	C	THR	97A	8.033	63.462	59.717	1.00	39.66	A
	ATOM	794	O	THR	97A	7.335	63.011	60.626	1.00	39.34	A
35	ATOM	795	N	MET	98A	8.133	62.888	58.523	1.00	40.43	A
	ATOM	796	CA	MET	98A	7.489	61.614	58.247	1.00	41.24	A
	ATOM	797	CB	MET	98A	7.366	61.394	56.736	1.00	40.81	A
	ATOM	798	CG	MET	98A	6.443	62.393	56.027	1.00	43.49	A
	ATOM	799	SD	MET	98A	4.696	62.326	56.616	1.00	49.18	A
40	ATOM	800	CE	MET	98A	4.119	60.820	55.719	1.00	44.25	A
	ATOM	801	C	MET	98A	8.517	60.654	58.848	1.00	41.94	A
	ATOM	802	O	MET	98A	9.502	61.107	59.426	1.00	43.14	A
	ATOM	803	N	THR	99A	8.313	59.349	58.741	1.00	42.89	A
	ATOM	804	CA	THR	99A	9.298	58.426	59.292	1.00	43.20	A
45	ATOM	805	CB	THR	99A	8.780	56.963	59.301	1.00	42.98	A
	ATOM	806	OG1	THR	99A	7.628	56.870	60.148	1.00	43.70	A
	ATOM	807	CG2	THR	99A	9.848	56.018	59.836	1.00	42.38	A
	ATOM	808	C	THR	99A	10.542	58.515	58.413	1.00	43.41	A
	ATOM	809	O	THR	99A	10.467	58.317	57.198	1.00	43.67	A
50	ATOM	810	N	GLY	100A	11.682	58.822	59.024	1.00	43.83	A
	ATOM	811	CA	GLY	100A	12.913	58.943	58.261	1.00	42.40	A
	ATOM	812	C	GLY	100A	13.916	57.841	58.526	1.00	42.10	A
	ATOM	813	O	GLY	100A	13.687	56.974	59.372	1.00	43.23	A
	ATOM	814	N	TRP	101A	15.032	57.893	57.796	1.00	41.54	A
55	ATOM	815	CA	TRP	101A	16.122	56.922	57.899	1.00	38.65	A
	ATOM	816	CB	TRP	101A	16.482	56.374	56.520	1.00	37.60	A
	ATOM	817	CG	TRP	101A	15.365	55.754	55.751	1.00	38.17	A
	ATOM	818	CD2	TRP	101A	14.346	56.444	55.022	1.00	35.93	A
	ATOM	819	CE2	TRP	101A	13.561	55.466	54.374	1.00	37.52	A

	ATOM	820	CE3	TRP	101A	14.022	57.799	54.850	1.00	36.75	A
	ATOM	821	CD1	TRP	101A	15.160	54.419	55.531	1.00	36.86	A
	ATOM	822	NE1	TRP	101A	14.080	54.239	54.701	1.00	39.16	A
	ATOM	823	CZ2	TRP	101A	12.471	55.796	53.561	1.00	36.93	A
5	ATOM	824	CZ3	TRP	101A	12.938	58.130	54.042	1.00	37.33	A
	ATOM	825	CH2	TRP	101A	12.175	57.129	53.407	1.00	37.88	A
	ATOM	826	C	TRP	101A	17.392	57.553	58.465	1.00	39.41	A
	ATOM	827	O	TRP	101A	17.778	58.651	58.070	1.00	39.32	A
	ATOM	828	N	VAL	102A	18.049	56.847	59.377	1.00	38.94	A
10	ATOM	829	CA	VAL	102A	19.299	57.320	59.962	1.00	37.82	A
	ATOM	830	CB	VAL	102A	19.118	57.779	61.426	1.00	38.60	A
	ATOM	831	CG1	VAL	102A	18.405	56.697	62.233	1.00	35.67	A
	ATOM	832	CG2	VAL	102A	20.484	58.084	62.045	1.00	36.17	A
	ATOM	833	C	VAL	102A	20.296	56.162	59.933	1.00	37.78	A
15	ATOM	834	O	VAL	102A	19.942	55.022	60.226	1.00	36.73	A
	ATOM	835	N	HIS	103A	21.536	56.449	59.570	1.00	37.51	A
	ATOM	836	CA	HIS	103A	22.550	55.408	59.513	1.00	38.11	A
	ATOM	837	CB	HIS	103A	22.360	54.571	58.236	1.00	39.51	A
	ATOM	838	CG	HIS	103A	22.493	55.349	56.958	1.00	41.39	A
20	ATOM	839	CD2	HIS	103A	21.587	55.634	55.990	1.00	41.87	A
	ATOM	840	ND1	HIS	103A	23.691	55.871	56.522	1.00	41.56	A
	ATOM	841	CE1	HIS	103A	23.520	56.438	55.339	1.00	42.43	A
	ATOM	842	NE2	HIS	103A	22.252	56.307	54.994	1.00	40.73	A
	ATOM	843	C	HIS	103A	23.955	56.005	59.578	1.00	37.50	A
25	ATOM	844	O	HIS	103A	24.134	57.190	59.318	1.00	36.51	A
	ATOM	845	N	ASP	104A	24.948	55.200	59.947	1.00	37.38	A
	ATOM	846	CA	ASP	104A	26.316	55.720	60.013	1.00	36.88	A
	ATOM	847	CB	ASP	104A	27.243	54.747	60.755	1.00	36.02	A
	ATOM	848	CG	ASP	104A	27.246	53.368	60.151	1.00	38.57	A
30	ATOM	849	OD1	ASP	104A	26.911	52.411	60.890	1.00	38.16	A
	ATOM	850	OD2	ASP	104A	27.584	53.236	58.949	1.00	35.46	A
	ATOM	851	C	ASP	104A	26.813	55.993	58.594	1.00	35.42	A
	ATOM	852	O	ASP	104A	26.262	55.472	57.625	1.00	34.95	A
	ATOM	853	N	VAL	105A	27.846	56.816	58.475	1.00	33.60	A
35	ATOM	854	CA	VAL	105A	28.376	57.202	57.173	1.00	32.29	A
	ATOM	855	CB	VAL	105A	29.567	58.176	57.349	1.00	31.63	A
	ATOM	856	CG1	VAL	105A	29.114	59.400	58.135	1.00	30.32	A
	ATOM	857	CG2	VAL	105A	30.705	57.493	58.069	1.00	27.80	A
	ATOM	858	C	VAL	105A	28.770	56.064	56.225	1.00	33.05	A
40	ATOM	859	O	VAL	105A	29.004	56.297	55.038	1.00	31.76	A
	ATOM	860	N	LEU	106A	28.827	54.840	56.745	1.00	32.31	A
	ATOM	861	CA	LEU	106A	29.181	53.672	55.942	1.00	31.31	A
	ATOM	862	CB	LEU	106A	30.149	52.776	56.724	1.00	30.02	A
	ATOM	863	CG	LEU	106A	31.561	53.325	56.950	1.00	31.66	A
45	ATOM	864	CD1	LEU	106A	32.230	52.582	58.086	1.00	25.76	A
	ATOM	865	CD2	LEU	106A	32.368	53.215	55.658	1.00	27.26	A
	ATOM	866	C	LEU	106A	27.944	52.861	55.535	1.00	32.32	A
	ATOM	867	O	LEU	106A	28.025	51.944	54.719	1.00	32.18	A
	ATOM	868	N	GLY	107A	26.799	53.206	56.110	1.00	32.88	A
50	ATOM	869	CA	GLY	107A	25.577	52.491	55.805	1.00	33.74	A
	ATOM	870	C	GLY	107A	25.492	51.162	56.534	1.00	34.80	A
	ATOM	871	O	GLY	107A	24.662	50.312	56.203	1.00	34.00	A
	ATOM	872	N	ARG	108A	26.346	50.982	57.537	1.00	34.65	A
	ATOM	873	CA	ARG	108A	26.373	49.738	58.308	1.00	35.31	A
55	ATOM	874	CB	ARG	108A	27.659	49.671	59.138	1.00	35.78	A
	ATOM	875	CG	ARG	108A	28.943	49.735	58.321	1.00	35.90	A
	ATOM	876	CD	ARG	108A	29.237	48.435	57.586	1.00	34.67	A
	ATOM	877	NE	ARG	108A	30.580	48.467	57.023	1.00	34.30	A
	ATOM	878	CZ	ARG	108A	30.871	48.873	55.793	1.00	34.94	A

	ATOM	879	NH1	ARG	108A	29.902	49.267	54.980	1.00	33.52	A
	ATOM	880	NH2	ARG	108A	32.137	48.928	55.390	1.00	34.11	A
	ATOM	881	C	ARG	108A	25.155	49.556	59.229	1.00	35.34	A
	ATOM	882	O	ARG	108A	24.377	48.621	59.051	1.00	33.84	A
5	ATOM	883	N	ASN	109A	24.997	50.443	60.209	1.00	34.21	A
	ATOM	884	CA	ASN	109A	23.872	50.361	61.139	1.00	34.56	A
	ATOM	885	CB	ASN	109A	24.363	50.573	62.572	1.00	33.46	A
	ATOM	886	CG	ASN	109A	25.263	49.457	63.038	1.00	36.30	A
	ATOM	887	OD1	ASN	109A	24.957	48.291	62.831	1.00	37.28	A
10	ATOM	888	ND2	ASN	109A	26.377	49.803	63.672	1.00	37.52	A
	ATOM	889	C	ASN	109A	22.743	51.353	60.827	1.00	34.94	A
	ATOM	890	O	ASN	109A	22.957	52.564	60.780	1.00	33.89	A
	ATOM	891	N	TRP	110A	21.537	50.835	60.627	1.00	34.48	A
	ATOM	892	CA	TRP	110A	20.392	51.688	60.314	1.00	35.17	A
15	ATOM	893	CB	TRP	110A	19.749	51.277	58.990	1.00	32.70	A
	ATOM	894	CG	TRP	110A	20.610	51.438	57.776	1.00	34.21	A
	ATOM	895	CD2	TRP	110A	20.274	52.162	56.580	1.00	33.47	A
	ATOM	896	CE2	TRP	110A	21.326	51.956	55.656	1.00	33.75	A
	ATOM	897	CE3	TRP	110A	19.183	52.958	56.197	1.00	32.14	A
20	ATOM	898	CD1	TRP	110A	21.822	50.849	57.538	1.00	34.45	A
	ATOM	899	NE1	TRP	110A	22.255	51.152	56.264	1.00	35.76	A
	ATOM	900	CZ2	TRP	110A	21.319	52.517	54.373	1.00	31.68	A
	ATOM	901	CZ3	TRP	110A	19.177	53.515	54.914	1.00	31.39	A
	ATOM	902	CH2	TRP	110A	20.238	53.290	54.023	1.00	30.25	A
25	ATOM	903	C	TRP	110A	19.309	51.666	61.382	1.00	36.33	A
	ATOM	904	O	TRP	110A	19.288	50.812	62.268	1.00	36.49	A
	ATOM	905	N	ALA	111A	18.395	52.618	61.271	1.00	36.87	A
	ATOM	906	CA	ALA	111A	17.277	52.728	62.190	1.00	37.24	A
	ATOM	907	CB	ALA	111A	17.757	53.207	63.544	1.00	35.55	A
30	ATOM	908	C	ALA	111A	16.312	53.733	61.591	1.00	37.20	A
	ATOM	909	O	ALA	111A	16.709	54.572	60.787	1.00	39.28	A
	ATOM	910	N	CYS	112A	15.042	53.637	61.957	1.00	37.49	A
	ATOM	911	CA	CYS	112A	14.055	54.580	61.459	1.00	37.32	A
	ATOM	912	C	CYS	112A	13.863	55.589	62.577	1.00	36.72	A
35	ATOM	913	O	CYS	112A	14.140	55.293	63.740	1.00	35.91	A
	ATOM	914	CB	CYS	112A	12.737	53.874	61.157	1.00	37.03	A
	ATOM	915	SG	CYS	112A	12.877	52.518	59.953	1.00	43.03	A
	ATOM	916	N	PHE	113A	13.398	56.781	62.236	1.00	36.33	A
	ATOM	917	CA	PHE	113A	13.193	57.798	63.255	1.00	36.32	A
40	ATOM	918	CB	PHE	113A	14.503	58.564	63.504	1.00	33.39	A
	ATOM	919	CG	PHE	113A	14.800	59.632	62.475	1.00	33.68	A
	ATOM	920	CD1	PHE	113A	14.399	60.951	62.683	1.00	32.68	A
	ATOM	921	CD2	PHE	113A	15.480	59.320	61.301	1.00	31.95	A
	ATOM	922	CE1	PHE	113A	14.672	61.939	61.745	1.00	32.07	A
45	ATOM	923	CE2	PHE	113A	15.758	60.306	60.356	1.00	31.07	A
	ATOM	924	CZ	PHE	113A	15.353	61.615	60.581	1.00	31.20	A
	ATOM	925	C	PHE	113A	12.099	58.773	62.852	1.00	37.28	A
	ATOM	926	O	PHE	113A	11.700	58.836	61.687	1.00	37.88	A
	ATOM	927	N	VAL	114A	11.609	59.515	63.836	1.00	38.19	A
50	ATOM	928	CA	VAL	114A	10.593	60.526	63.605	1.00	39.37	A
	ATOM	929	CB	VAL	114A	9.212	60.108	64.150	1.00	41.84	A
	ATOM	930	CG1	VAL	114A	8.232	61.291	64.073	1.00	41.72	A
	ATOM	931	CG2	VAL	114A	8.673	58.982	63.324	1.00	43.04	A
	ATOM	932	C	VAL	114A	11.067	61.746	64.358	1.00	39.00	A
55	ATOM	933	O	VAL	114A	11.597	61.629	65.459	1.00	41.12	A
	ATOM	934	N	GLY	115A	10.886	62.915	63.766	1.00	39.39	A
	ATOM	935	CA	GLY	115A	11.324	64.116	64.434	1.00	39.84	A
	ATOM	936	C	GLY	115A	10.237	65.128	64.721	1.00	40.57	A
	ATOM	937	O	GLY	115A	9.295	65.302	63.943	1.00	37.96	A

	ATOM	938	N	LYS	116A	10.368	65.781	65.872	1.00	40.96	A
	ATOM	939	CA	LYS	116A	9.451	66.833	66.276	1.00	44.38	A
	ATOM	940	CB	LYS	116A	8.502	66.370	67.379	1.00	45.69	A
	ATOM	941	CG	LYS	116A	7.446	67.415	67.732	1.00	48.45	A
5	ATOM	942	CD	LYS	116A	6.544	66.936	68.871	1.00	52.22	A
	ATOM	943	CE	LYS	116A	5.506	67.998	69.261	1.00	55.49	A
	ATOM	944	NZ	LYS	116A	4.599	67.525	70.386	1.00	56.81	A
	ATOM	945	C	LYS	116A	10.341	67.957	66.785	1.00	45.21	A
	ATOM	946	O	LYS	116A	11.176	67.759	67.665	1.00	45.69	A
10	ATOM	947	N	LYS	117A	10.187	69.120	66.251	1.00	46.45	A
	ATOM	948	CA	LYS	117A	11.031	70.290	66.563	1.00	49.63	A
	ATOM	949	CB	LYS	117A	10.793	71.334	65.502	1.00	47.60	A
	ATOM	950	CG	LYS	117A	11.857	72.397	65.445	1.00	45.85	A
	ATOM	951	CD	LYS	117A	11.520	73.429	64.399	1.00	46.74	A
15	ATOM	952	CE	LYS	117A	12.390	74.658	64.461	1.00	45.21	A
	ATOM	953	NZ	LYS	117A	11.848	75.754	63.655	1.00	46.48	A
	ATOM	954	C	LYS	117A	10.631	70.837	67.919	1.00	51.95	A
	ATOM	955	O	LYS	117A	9.575	70.557	68.485	1.00	52.94	A
	ATOM	956	N	MET	118A	11.388	71.635	68.584	1.00	56.26	A
20	ATOM	957	CA	MET	118A	10.777	72.066	69.847	1.00	60.51	A
	ATOM	958	CB	MET	118A	11.442	71.338	71.088	1.00	62.19	A
	ATOM	959	CG	MET	118A	12.795	71.747	71.518	1.00	64.16	A
	ATOM	960	SD	MET	118A	13.195	71.360	73.237	1.00	71.85	A
	ATOM	961	CE	MET	118A	14.138	69.832	73.308	1.00	66.22	A
25	ATOM	962	C	MET	118A	10.791	73.552	69.842	1.00	62.12	A
	ATOM	963	O	MET	118A	10.513	74.136	68.767	1.00	62.77	A
	ATOM	964	CB	LEU	204A	42.283	76.411	38.767	1.00	60.76	A
	ATOM	965	CG	LEU	204A	41.797	75.924	37.393	1.00	63.17	A
	ATOM	966	CD1	LEU	204A	42.890	75.072	36.708	1.00	61.64	A
30	ATOM	967	CD2	LEU	204A	40.520	75.104	37.569	1.00	63.24	A
	ATOM	968	C	LEU	204A	42.101	78.767	38.000	1.00	57.86	A
	ATOM	969	O	LEU	204A	41.056	79.181	38.517	1.00	59.03	A
	ATOM	970	N	LEU	204A	43.338	78.195	40.136	1.00	59.06	A
	ATOM	971	CA	LEU	204A	42.994	77.768	38.742	1.00	59.27	A
35	ATOM	972	N	SER	205A	42.514	79.154	36.792	1.00	54.67	A
	ATOM	973	CA	SER	205A	41.727	80.074	35.965	1.00	51.99	A
	ATOM	974	CB	SER	205A	42.649	80.983	35.143	1.00	51.92	A
	ATOM	975	OG	SER	205A	43.082	82.110	35.891	1.00	50.74	A
	ATOM	976	C	SER	205A	40.843	79.243	35.020	1.00	49.72	A
40	ATOM	977	O	SER	205A	41.357	78.459	34.221	1.00	48.73	A
	ATOM	978	N	LEU	206A	39.523	79.415	35.108	1.00	47.50	A
	ATOM	979	CA	LEU	206A	38.593	78.651	34.269	1.00	45.23	A
	ATOM	980	CB	LEU	206A	37.188	78.684	34.874	1.00	45.07	A
	ATOM	981	CG	LEU	206A	37.041	78.104	36.282	1.00	45.79	A
45	ATOM	982	CD1	LEU	206A	35.671	78.422	36.828	1.00	44.15	A
	ATOM	983	CD2	LEU	206A	37.267	76.606	36.249	1.00	48.05	A
	ATOM	984	C	LEU	206A	38.533	79.172	32.839	1.00	44.04	A
	ATOM	985	O	LEU	206A	38.653	80.372	32.603	1.00	42.90	A
	ATOM	986	N	PRO	207A	38.351	78.271	31.862	1.00	43.73	A
50	ATOM	987	CD	PRO	207A	38.263	76.804	31.986	1.00	44.29	A
	ATOM	988	CA	PRO	207A	38.276	78.686	30.454	1.00	43.66	A
	ATOM	989	CB	PRO	207A	38.338	77.361	29.697	1.00	42.25	A
	ATOM	990	CG	PRO	207A	37.653	76.404	30.644	1.00	43.03	A
	ATOM	991	C	PRO	207A	36.988	79.448	30.175	1.00	44.45	A
55	ATOM	992	O	PRO	207A	36.007	79.307	30.915	1.00	42.69	A
	ATOM	993	N	GLU	208A	36.995	80.247	29.107	1.00	45.03	A
	ATOM	994	CA	GLU	208A	35.828	81.037	28.727	1.00	45.59	A
	ATOM	995	CB	GLU	208A	36.199	82.068	27.644	1.00	49.91	A
	ATOM	996	CG	GLU	208A	35.045	83.037	27.314	1.00	58.35	A

	ATOM	997	CD	GLU	208A	35.438	84.174	26.360	1.00	63.73	A
	ATOM	998	OE1	GLU	208A	36.414	84.911	26.673	1.00	64.92	A
	ATOM	999	OE2	GLU	208A	34.758	84.338	25.304	1.00	64.51	A
	ATOM	1000	C	GLU	208A	34.686	80.155	28.228	1.00	43.40	A
5	ATOM	1001	O	GLU	208A	33.537	80.588	28.177	1.00	43.14	A
	ATOM	1002	N	SER	209A	35.005	78.920	27.858	1.00	41.64	A
	ATOM	1003	CA	SER	209A	33.995	77.987	27.364	1.00	42.98	A
	ATOM	1004	CB	SER	209A	33.898	78.026	25.834	1.00	41.86	A
	ATOM	1005	OG	SER	209A	33.311	79.233	25.397	1.00	46.88	A
10	ATOM	1006	C	SER	209A	34.311	76.570	27.763	1.00	41.34	A
	ATOM	1007	O	SER	209A	35.467	76.219	27.987	1.00	41.63	A
	ATOM	1008	N	TRP	210A	33.271	75.754	27.843	1.00	39.80	A
	ATOM	1009	CA	TRP	210A	33.445	74.357	28.176	1.00	39.50	A
	ATOM	1010	CB	TRP	210A	33.583	74.162	29.684	1.00	39.54	A
15	ATOM	1011	CG	TRP	210A	34.150	72.831	30.005	1.00	40.74	A
	ATOM	1012	CD2	TRP	210A	35.523	72.442	29.892	1.00	42.13	A
	ATOM	1013	CE2	TRP	210A	35.600	71.078	30.244	1.00	43.40	A
	ATOM	1014	CE3	TRP	210A	36.699	73.117	29.526	1.00	41.72	A
	ATOM	1015	CD1	TRP	210A	33.469	71.721	30.408	1.00	41.01	A
20	ATOM	1016	NE1	TRP	210A	34.331	70.662	30.555	1.00	43.32	A
	ATOM	1017	CZ2	TRP	210A	36.809	70.372	30.244	1.00	43.55	A
	ATOM	1018	CZ3	TRP	210A	37.898	72.417	29.526	1.00	41.80	A
	ATOM	1019	CH2	TRP	210A	37.944	71.058	29.883	1.00	42.60	A
	ATOM	1020	C	TRP	210A	32.251	73.585	27.656	1.00	38.40	A
25	ATOM	1021	O	TRP	210A	31.144	74.107	27.597	1.00	38.62	A
	ATOM	1022	N	ASP	211A	32.487	72.339	27.274	1.00	37.90	A
	ATOM	1023	CA	ASP	211A	31.438	71.498	26.741	1.00	39.42	A
	ATOM	1024	CB	ASP	211A	31.226	71.810	25.255	1.00	40.30	A
	ATOM	1025	CG	ASP	211A	30.001	71.121	24.680	1.00	42.13	A
30	ATOM	1026	OD1	ASP	211A	29.686	69.980	25.094	1.00	41.61	A
	ATOM	1027	OD2	ASP	211A	29.355	71.722	23.798	1.00	44.89	A
	ATOM	1028	C	ASP	211A	31.906	70.066	26.898	1.00	38.98	A
	ATOM	1029	O	ASP	211A	32.797	69.619	26.170	1.00	40.10	A
	ATOM	1030	N	TRP	212A	31.312	69.341	27.839	1.00	37.88	A
35	ATOM	1031	CA	TRP	212A	31.715	67.957	28.064	1.00	37.19	A
	ATOM	1032	CB	TRP	212A	31.096	67.431	29.356	1.00	34.20	A
	ATOM	1033	CG	TRP	212A	31.871	67.859	30.559	1.00	34.97	A
	ATOM	1034	CD2	TRP	212A	33.200	67.458	30.900	1.00	33.58	A
	ATOM	1035	CE2	TRP	212A	33.544	68.125	32.098	1.00	32.11	A
40	ATOM	1036	CE3	TRP	212A	34.136	66.598	30.309	1.00	33.15	A
	ATOM	1037	CD1	TRP	212A	31.472	68.729	31.535	1.00	34.50	A
	ATOM	1038	NE1	TRP	212A	32.471	68.893	32.460	1.00	31.73	A
	ATOM	1039	CZ2	TRP	212A	34.789	67.960	32.717	1.00	31.38	A
	ATOM	1040	CZ3	TRP	212A	35.377	66.432	30.925	1.00	33.67	A
45	ATOM	1041	CH2	TRP	212A	35.689	67.113	32.119	1.00	31.45	A
	ATOM	1042	C	TRP	212A	31.409	67.016	26.908	1.00	36.01	A
	ATOM	1043	O	TRP	212A	31.690	65.822	26.977	1.00	35.38	A
	ATOM	1044	N	ARG	213A	30.833	67.557	25.843	1.00	36.60	A
	ATOM	1045	CA	ARG	213A	30.519	66.750	24.673	1.00	39.10	A
50	ATOM	1046	CB	ARG	213A	29.235	67.233	23.995	1.00	38.63	A
	ATOM	1047	CG	ARG	213A	27.961	66.993	24.791	1.00	40.76	A
	ATOM	1048	CD	ARG	213A	26.781	67.676	24.122	1.00	40.47	A
	ATOM	1049	NE	ARG	213A	27.014	69.106	23.917	1.00	40.24	A
	ATOM	1050	CZ	ARG	213A	26.172	69.915	23.280	1.00	42.14	A
55	ATOM	1051	NH1	ARG	213A	25.038	69.437	22.783	1.00	42.64	A
	ATOM	1052	NH2	ARG	213A	26.457	71.203	23.137	1.00	41.28	A
	ATOM	1053	C	ARG	213A	31.666	66.876	23.692	1.00	39.11	A
	ATOM	1054	O	ARG	213A	31.729	66.148	22.709	1.00	41.12	A
	ATOM	1055	N	ASN	214A	32.575	67.803	23.970	1.00	39.70	A

	ATOM	1056	CA	ASN	214A	33.710	68.037	23.090	1.00	40.84	A
	ATOM	1057	CB	ASN	214A	33.271	68.923	21.917	1.00	41.89	A
	ATOM	1058	CG	ASN	214A	34.398	69.213	20.927	1.00	44.07	A
	ATOM	1059	OD1	ASN	214A	34.147	69.767	19.863	1.00	48.05	A
5	ATOM	1060	ND2	ASN	214A	35.635	68.851	21.273	1.00	42.55	A
	ATOM	1061	C	ASN	214A	34.886	68.669	23.827	1.00	40.29	A
	ATOM	1062	O	ASN	214A	35.081	69.885	23.818	1.00	39.26	A
	ATOM	1063	N	VAL	215A	35.662	67.819	24.477	1.00	41.48	A
	ATOM	1064	CA	VAL	215A	36.832	68.264	25.200	1.00	42.51	A
10	ATOM	1065	CB	VAL	215A	36.869	67.688	26.621	1.00	41.57	A
	ATOM	1066	CG1	VAL	215A	38.158	68.106	27.319	1.00	40.74	A
	ATOM	1067	CG2	VAL	215A	35.659	68.178	27.392	1.00	40.54	A
	ATOM	1068	C	VAL	215A	37.991	67.732	24.394	1.00	43.98	A
	ATOM	1069	O	VAL	215A	38.332	66.548	24.467	1.00	42.91	A
15	ATOM	1070	N	ARG	216A	38.572	68.618	23.594	1.00	47.02	A
	ATOM	1071	CA	ARG	216A	39.687	68.252	22.746	1.00	48.40	A
	ATOM	1072	CB	ARG	216A	40.883	67.863	23.627	1.00	50.63	A
	ATOM	1073	CG	ARG	216A	41.555	69.110	24.239	1.00	55.55	A
	ATOM	1074	CD	ARG	216A	42.286	68.868	25.576	1.00	57.36	A
20	ATOM	1075	NE	ARG	216A	43.347	67.868	25.491	1.00	59.32	A
	ATOM	1076	CZ	ARG	216A	44.588	68.042	25.957	1.00	61.88	A
	ATOM	1077	NH1	ARG	216A	44.938	69.185	26.542	1.00	61.15	A
	ATOM	1078	NH2	ARG	216A	45.491	67.064	25.844	1.00	62.48	A
	ATOM	1079	C	ARG	216A	39.237	67.122	21.827	1.00	47.55	A
25	ATOM	1080	O	ARG	216A	39.971	66.156	21.596	1.00	49.30	A
	ATOM	1081	N	GLY	217A	38.006	67.258	21.326	1.00	45.20	A
	ATOM	1082	CA	GLY	217A	37.428	66.285	20.411	1.00	42.32	A
	ATOM	1083	C	GLY	217A	36.693	65.100	21.013	1.00	42.42	A
	ATOM	1084	O	GLY	217A	35.966	64.387	20.312	1.00	42.79	A
30	ATOM	1085	N	ILE	218A	36.864	64.884	22.312	1.00	41.93	A
	ATOM	1086	CA	ILE	218A	36.226	63.760	22.986	1.00	40.79	A
	ATOM	1087	CB	ILE	218A	37.103	63.237	24.141	1.00	42.89	A
	ATOM	1088	CG2	ILE	218A	36.643	61.830	24.532	1.00	42.09	A
	ATOM	1089	CG1	ILE	218A	38.588	63.269	23.748	1.00	44.62	A
35	ATOM	1090	CD	ILE	218A	38.950	62.360	22.579	1.00	44.91	A
	ATOM	1091	C	ILE	218A	34.861	64.081	23.595	1.00	39.93	A
	ATOM	1092	O	ILE	218A	34.647	65.170	24.127	1.00	39.30	A
	ATOM	1093	N	ASN	219A	33.941	63.124	23.522	1.00	38.06	A
	ATOM	1094	CA	ASN	219A	32.625	63.302	24.126	1.00	38.18	A
40	ATOM	1095	CB	ASN	219A	31.511	62.857	23.180	1.00	37.26	A
	ATOM	1096	CG	ASN	219A	30.173	62.676	23.900	1.00	42.75	A
	ATOM	1097	OD1	ASN	219A	29.620	63.624	24.473	1.00	43.24	A
	ATOM	1098	ND2	ASN	219A	29.651	61.451	23.879	1.00	42.67	A
	ATOM	1099	C	ASN	219A	32.571	62.447	25.387	1.00	36.57	A
45	ATOM	1100	O	ASN	219A	33.020	61.308	25.378	1.00	37.77	A
	ATOM	1101	N	PHE	220A	32.036	62.992	26.472	1.00	35.18	A
	ATOM	1102	CA	PHE	220A	31.929	62.227	27.708	1.00	34.39	A
	ATOM	1103	CB	PHE	220A	32.744	62.869	28.835	1.00	34.19	A
	ATOM	1104	CG	PHE	220A	34.221	62.933	28.573	1.00	33.94	A
50	ATOM	1105	CD1	PHE	220A	34.776	64.014	27.901	1.00	34.39	A
	ATOM	1106	CD2	PHE	220A	35.064	61.926	29.028	1.00	34.54	A
	ATOM	1107	CE1	PHE	220A	36.154	64.098	27.690	1.00	34.94	A
	ATOM	1108	CE2	PHE	220A	36.442	62.001	28.821	1.00	36.85	A
	ATOM	1109	CZ	PHE	220A	36.986	63.095	28.149	1.00	34.41	A
55	ATOM	1110	C	PHE	220A	30.482	62.124	28.171	1.00	35.50	A
	ATOM	1111	O	PHE	220A	30.213	61.575	29.236	1.00	38.07	A
	ATOM	1112	N	VAL	221A	29.550	62.650	27.384	1.00	34.77	A
	ATOM	1113	CA	VAL	221A	28.145	62.615	27.776	1.00	34.31	A
	ATOM	1114	CB	VAL	221A	27.436	63.965	27.441	1.00	32.66	A

	ATOM	1115	CG1	VAL	221A	26.054	64.002	28.074	1.00	30.25	A
	ATOM	1116	CG2	VAL	221A	28.277	65.134	27.919	1.00	28.53	A
	ATOM	1117	C	VAL	221A	27.376	61.472	27.114	1.00	35.79	A
	ATOM	1118	O	VAL	221A	27.495	61.241	25.910	1.00	37.58	A
5	ATOM	1119	N	SER	222A	26.591	60.760	27.917	1.00	37.78	A
	ATOM	1120	CA	SER	222A	25.781	59.647	27.437	1.00	37.88	A
	ATOM	1121	CB	SER	222A	25.198	58.862	28.617	1.00	36.20	A
	ATOM	1122	OG	SER	222A	24.239	59.627	29.324	1.00	37.10	A
	ATOM	1123	C	SER	222A	24.662	60.222	26.564	1.00	40.28	A
10	ATOM	1124	O	SER	222A	24.372	61.418	26.626	1.00	41.12	A
	ATOM	1125	N	PRO	223A	24.012	59.374	25.748	1.00	41.46	A
	ATOM	1126	CD	PRO	223A	24.334	57.956	25.506	1.00	41.70	A
	ATOM	1127	CA	PRO	223A	22.931	59.816	24.856	1.00	42.55	A
	ATOM	1128	CB	PRO	223A	22.655	58.570	24.003	1.00	41.62	A
15	ATOM	1129	CG	PRO	223A	23.958	57.802	24.055	1.00	41.09	A
	ATOM	1130	C	PRO	223A	21.655	60.339	25.520	1.00	43.22	A
	ATOM	1131	O	PRO	223A	21.293	59.928	26.625	1.00	44.82	A
	ATOM	1132	N	VAL	224A	20.980	61.251	24.826	1.00	42.02	A
	ATOM	1133	CA	VAL	224A	19.730	61.817	25.299	1.00	39.95	A
20	ATOM	1134	CB	VAL	224A	19.221	62.910	24.337	1.00	40.39	A
	ATOM	1135	CG1	VAL	224A	17.850	63.398	24.777	1.00	39.21	A
	ATOM	1136	CG2	VAL	224A	20.208	64.069	24.293	1.00	38.24	A
	ATOM	1137	C	VAL	224A	18.696	60.693	25.364	1.00	40.52	A
	ATOM	1138	O	VAL	224A	18.727	59.745	24.575	1.00	39.90	A
25	ATOM	1139	N	ARG	225A	17.785	60.797	26.318	1.00	40.16	A
	ATOM	1140	CA	ARG	225A	16.741	59.801	26.485	1.00	39.12	A
	ATOM	1141	CB	ARG	225A	16.993	58.975	27.747	1.00	40.37	A
	ATOM	1142	CG	ARG	225A	18.299	58.212	27.723	1.00	38.54	A
	ATOM	1143	CD	ARG	225A	18.325	57.176	28.831	1.00	40.13	A
30	ATOM	1144	NE	ARG	225A	17.361	56.104	28.606	1.00	36.10	A
	ATOM	1145	CZ	ARG	225A	17.228	55.042	29.395	1.00	37.08	A
	ATOM	1146	NH1	ARG	225A	17.992	54.908	30.471	1.00	36.45	A
	ATOM	1147	NH2	ARG	225A	16.350	54.095	29.090	1.00	37.85	A
	ATOM	1148	C	ARG	225A	15.411	60.526	26.587	1.00	39.00	A
35	ATOM	1149	O	ARG	225A	15.374	61.756	26.558	1.00	36.32	A
	ATOM	1150	N	ASN	226A	14.322	59.771	26.705	1.00	39.77	A
	ATOM	1151	CA	ASN	226A	12.994	60.372	26.801	1.00	40.94	A
	ATOM	1152	CB	ASN	226A	12.203	60.106	25.518	1.00	41.93	A
	ATOM	1153	CG	ASN	226A	11.069	61.081	25.327	1.00	43.59	A
40	ATOM	1154	OD1	ASN	226A	10.347	61.409	26.270	1.00	44.46	A
	ATOM	1155	ND2	ASN	226A	10.900	61.554	24.099	1.00	43.95	A
	ATOM	1156	C	ASN	226A	12.232	59.800	27.994	1.00	40.33	A
	ATOM	1157	O	ASN	226A	11.944	58.604	28.031	1.00	40.17	A
	ATOM	1158	N	GLN	227A	11.902	60.662	28.956	1.00	39.53	A
45	ATOM	1159	CA	GLN	227A	11.181	60.248	30.161	1.00	40.81	A
	ATOM	1160	CB	GLN	227A	11.266	61.356	31.232	1.00	39.19	A
	ATOM	1161	CG	GLN	227A	10.364	62.560	30.974	1.00	39.71	A
	ATOM	1162	CD	GLN	227A	10.652	63.744	31.884	1.00	39.59	A
	ATOM	1163	OE1	GLN	227A	11.525	64.558	31.601	1.00	41.91	A
50	ATOM	1164	NE2	GLN	227A	9.919	63.841	32.986	1.00	39.77	A
	ATOM	1165	C	GLN	227A	9.709	59.940	29.838	1.00	41.13	A
	ATOM	1166	O	GLN	227A	8.988	59.352	30.653	1.00	38.36	A
	ATOM	1167	N	GLU	228A	9.284	60.339	28.640	1.00	41.73	A
	ATOM	1168	CA	GLU	228A	7.909	60.141	28.175	1.00	42.48	A
55	ATOM	1169	CB	GLU	228A	7.632	58.650	27.938	1.00	42.68	A
	ATOM	1170	CG	GLU	228A	8.628	57.966	26.992	1.00	44.71	A
	ATOM	1171	CD	GLU	228A	8.584	58.496	25.546	1.00	48.49	A
	ATOM	1172	OE1	GLU	228A	7.952	59.553	25.299	1.00	47.21	A
	ATOM	1173	OE2	GLU	228A	9.196	57.853	24.655	1.00	46.44	A

	ATOM	1174	C	GLU	228A	6.879	60.734	29.151	1.00	43.29	A
	ATOM	1175	O	GLU	228A	7.001	61.898	29.548	1.00	42.72	A
	ATOM	1176	N	SER	229A	5.879	59.942	29.541	1.00	43.13	A
	ATOM	1177	CA	SER	229A	4.830	60.423	30.444	1.00	44.45	A
5	ATOM	1178	CB	SER	229A	3.461	59.925	29.970	1.00	44.84	A
	ATOM	1179	OG	SER	229A	3.077	60.597	28.781	1.00	49.54	A
	ATOM	1180	C	SER	229A	5.022	60.037	31.901	1.00	43.87	A
	ATOM	1181	O	SER	229A	4.175	59.374	32.501	1.00	45.29	A
	ATOM	1182	N	CYS	230A	6.131	60.471	32.474	1.00	42.76	A
10	ATOM	1183	CA	CYS	230A	6.437	60.151	33.856	1.00	41.61	A
	ATOM	1184	C	CYS	230A	7.294	61.297	34.375	1.00	41.02	A
	ATOM	1185	O	CYS	230A	8.237	61.731	33.705	1.00	38.36	A
	ATOM	1186	CB	CYS	230A	7.175	58.804	33.889	1.00	42.39	A
	ATOM	1187	SG	CYS	230A	7.892	58.217	35.462	1.00	45.00	A
15	ATOM	1188	N	GLY	231A	6.932	61.820	35.542	1.00	40.31	A
	ATOM	1189	CA	GLY	231A	7.695	62.914	36.119	1.00	42.36	A
	ATOM	1190	C	GLY	231A	8.974	62.370	36.729	1.00	42.45	A
	ATOM	1191	O	GLY	231A	9.205	62.516	37.928	1.00	44.11	A
	ATOM	1192	N	SER	232A	9.793	61.733	35.895	1.00	40.90	A
20	ATOM	1193	CA	SER	232A	11.044	61.125	36.325	1.00	41.07	A
	ATOM	1194	CB	SER	232A	11.116	59.682	35.823	1.00	40.51	A
	ATOM	1195	OG	SER	232A	11.114	59.645	34.408	1.00	40.68	A
	ATOM	1196	C	SER	232A	12.270	61.900	35.844	1.00	41.72	A
	ATOM	1197	O	SER	232A	13.364	61.350	35.737	1.00	43.25	A
25	ATOM	1198	N	CYS	233A	12.082	63.179	35.551	1.00	42.19	A
	ATOM	1199	CA	CYS	233A	13.179	64.031	35.112	1.00	40.50	A
	ATOM	1200	CB	CYS	233A	12.671	65.468	35.006	1.00	42.98	A
	ATOM	1201	SG	CYS	233A	11.357	65.827	36.206	1.00	41.32	A
	ATOM	1202	C	CYS	233A	14.342	63.939	36.115	1.00	39.65	A
30	ATOM	1203	O	CYS	233A	15.491	63.739	35.723	1.00	37.33	A
	ATOM	1204	N	TYR	234A	14.034	64.069	37.407	1.00	37.54	A
	ATOM	1205	CA	TYR	234A	15.059	64.002	38.452	1.00	35.94	A
	ATOM	1206	CB	TYR	234A	14.431	63.995	39.847	1.00	34.56	A
	ATOM	1207	CG	TYR	234A	13.617	62.753	40.131	1.00	35.07	A
35	ATOM	1208	CD1	TYR	234A	12.298	62.642	39.683	1.00	33.43	A
	ATOM	1209	CE1	TYR	234A	11.549	61.491	39.921	1.00	34.92	A
	ATOM	1210	CD2	TYR	234A	14.170	61.679	40.825	1.00	32.02	A
	ATOM	1211	CE2	TYR	234A	13.431	60.521	41.067	1.00	34.50	A
	ATOM	1212	CZ	TYR	234A	12.120	60.435	40.614	1.00	34.27	A
40	ATOM	1213	OH	TYR	234A	11.380	59.304	40.857	1.00	32.28	A
	ATOM	1214	C	TYR	234A	15.897	62.744	38.311	1.00	35.98	A
	ATOM	1215	O	TYR	234A	17.077	62.722	38.661	1.00	36.04	A
	ATOM	1216	N	SER	235A	15.270	61.695	37.799	1.00	36.62	A
	ATOM	1217	CA	SER	235A	15.926	60.415	37.613	1.00	36.30	A
45	ATOM	1218	CB	SER	235A	14.878	59.345	37.322	1.00	38.72	A
	ATOM	1219	OG	SER	235A	15.467	58.062	37.316	1.00	44.86	A
	ATOM	1220	C	SER	235A	16.954	60.456	36.484	1.00	37.25	A
	ATOM	1221	O	SER	235A	18.069	59.960	36.641	1.00	38.20	A
	ATOM	1222	N	PHE	236A	16.589	61.040	35.344	1.00	36.37	A
50	ATOM	1223	CA	PHE	236A	17.519	61.113	34.225	1.00	34.77	A
	ATOM	1224	CB	PHE	236A	16.793	61.503	32.938	1.00	33.54	A
	ATOM	1225	CG	PHE	236A	15.850	60.452	32.453	1.00	34.69	A
	ATOM	1226	CD1	PHE	236A	14.570	60.351	32.984	1.00	32.82	A
	ATOM	1227	CD2	PHE	236A	16.264	59.513	31.514	1.00	34.50	A
55	ATOM	1228	CE1	PHE	236A	13.719	59.329	32.589	1.00	34.84	A
	ATOM	1229	CE2	PHE	236A	15.423	58.485	31.111	1.00	34.89	A
	ATOM	1230	CZ	PHE	236A	14.148	58.390	31.649	1.00	36.26	A
	ATOM	1231	C	PHE	236A	18.640	62.087	34.513	1.00	34.90	A
	ATOM	1232	O	PHE	236A	19.786	61.854	34.129	1.00	35.45	A

	ATOM	1233	N	ALA	237A	18.310	63.177	35.195	1.00	34.54	A
	ATOM	1234	CA	ALA	237A	19.311	64.168	35.549	1.00	35.52	A
	ATOM	1235	CB	ALA	237A	18.650	65.371	36.237	1.00	34.83	A
	ATOM	1236	C	ALA	237A	20.341	63.515	36.478	1.00	34.13	A
5	ATOM	1237	O	ALA	237A	21.544	63.685	36.290	1.00	35.56	A
	ATOM	1238	N	SER	238A	19.859	62.759	37.462	1.00	33.20	A
	ATOM	1239	CA	SER	238A	20.730	62.073	38.420	1.00	33.60	A
	ATOM	1240	CB	SER	238A	19.899	61.352	39.489	1.00	30.65	A
	ATOM	1241	OG	SER	238A	19.343	62.256	40.421	1.00	31.67	A
10	ATOM	1242	C	SER	238A	21.662	61.063	37.761	1.00	34.05	A
	ATOM	1243	O	SER	238A	22.876	61.135	37.917	1.00	35.64	A
	ATOM	1244	N	LEU	239A	21.088	60.116	37.028	1.00	35.05	A
	ATOM	1245	CA	LEU	239A	21.879	59.096	36.361	1.00	35.33	A
	ATOM	1246	CB	LEU	239A	20.966	57.978	35.850	1.00	37.23	A
15	ATOM	1247	CG	LEU	239A	20.047	57.357	36.909	1.00	38.11	A
	ATOM	1248	CD1	LEU	239A	19.206	56.268	36.257	1.00	39.42	A
	ATOM	1249	CD2	LEU	239A	20.870	56.781	38.061	1.00	38.19	A
	ATOM	1250	C	LEU	239A	22.705	59.681	35.220	1.00	35.06	A
	ATOM	1251	O	LEU	239A	23.791	59.182	34.917	1.00	36.37	A
20	ATOM	1252	N	GLY	240A	22.195	60.733	34.585	1.00	34.28	A
	ATOM	1253	CA	GLY	240A	22.942	61.370	33.513	1.00	33.64	A
	ATOM	1254	C	GLY	240A	24.260	61.919	34.046	1.00	33.90	A
	ATOM	1255	O	GLY	240A	25.272	61.928	33.347	1.00	33.47	A
	ATOM	1256	N	MET	241A	24.254	62.379	35.293	1.00	33.16	A
25	ATOM	1257	CA	MET	241A	25.468	62.913	35.902	1.00	33.25	A
	ATOM	1258	CB	MET	241A	25.136	63.684	37.188	1.00	32.59	A
	ATOM	1259	CG	MET	241A	26.323	63.897	38.122	1.00	31.55	A
	ATOM	1260	SD	MET	241A	26.110	65.281	39.256	1.00	32.58	A
	ATOM	1261	CE	MET	241A	24.891	64.625	40.405	1.00	29.63	A
30	ATOM	1262	C	MET	241A	26.439	61.779	36.205	1.00	32.66	A
	ATOM	1263	O	MET	241A	27.617	61.842	35.837	1.00	32.42	A
	ATOM	1264	N	LEU	242A	25.935	60.740	36.869	1.00	33.83	A
	ATOM	1265	CA	LEU	242A	26.756	59.586	37.216	1.00	33.05	A
	ATOM	1266	CB	LEU	242A	25.920	58.542	37.964	1.00	31.47	A
35	ATOM	1267	CG	LEU	242A	25.206	58.971	39.254	1.00	33.85	A
	ATOM	1268	CD1	LEU	242A	24.605	57.743	39.916	1.00	28.79	A
	ATOM	1269	CD2	LEU	242A	26.172	59.673	40.203	1.00	29.04	A
	ATOM	1270	C	LEU	242A	27.368	58.958	35.961	1.00	33.49	A
	ATOM	1271	O	LEU	242A	28.531	58.564	35.960	1.00	36.52	A
40	ATOM	1272	N	GLU	243A	26.584	58.875	34.892	1.00	33.68	A
	ATOM	1273	CA	GLU	243A	27.053	58.296	33.636	1.00	32.57	A
	ATOM	1274	CB	GLU	243A	25.897	58.237	32.619	1.00	33.66	A
	ATOM	1275	CG	GLU	243A	24.901	57.111	32.847	1.00	31.17	A
	ATOM	1276	CD	GLU	243A	23.557	57.371	32.175	1.00	31.74	A
45	ATOM	1277	OE1	GLU	243A	23.428	58.381	31.455	1.00	34.62	A
	ATOM	1278	OE2	GLU	243A	22.625	56.566	32.373	1.00	30.05	A
	ATOM	1279	C	GLU	243A	28.224	59.071	33.036	1.00	30.97	A
	ATOM	1280	O	GLU	243A	29.237	58.487	32.654	1.00	31.14	A
	ATOM	1281	N	ALA	244A	28.076	60.388	32.949	1.00	30.76	A
50	ATOM	1282	CA	ALA	244A	29.112	61.245	32.388	1.00	30.99	A
	ATOM	1283	CB	ALA	244A	28.570	62.657	32.182	1.00	29.53	A
	ATOM	1284	C	ALA	244A	30.350	61.287	33.270	1.00	32.41	A
	ATOM	1285	O	ALA	244A	31.474	61.194	32.778	1.00	32.44	A
	ATOM	1286	N	ARG	245A	30.147	61.430	34.575	1.00	33.23	A
55	ATOM	1287	CA	ARG	245A	31.277	61.492	35.487	1.00	34.32	A
	ATOM	1288	CB	ARG	245A	30.811	61.902	36.889	1.00	35.13	A
	ATOM	1289	CG	ARG	245A	30.370	63.350	36.908	1.00	32.94	A
	ATOM	1290	CD	ARG	245A	30.137	63.911	38.281	1.00	30.12	A
	ATOM	1291	NE	ARG	245A	30.060	65.364	38.194	1.00	31.14	A

	ATOM	1292	CZ	ARG	245A	30.143	66.191	39.230	1.00	30.36	A
	ATOM	1293	NH1	ARG	245A	30.303	65.705	40.453	1.00	30.84	A
	ATOM	1294	NH2	ARG	245A	30.085	67.499	39.036	1.00	25.87	A
	ATOM	1295	C	ARG	245A	32.069	60.193	35.519	1.00	34.50	A
5	ATOM	1296	O	ARG	245A	33.282	60.222	35.714	1.00	36.16	A
	ATOM	1297	N	ILE	246A	31.391	59.061	35.320	1.00	35.58	A
	ATOM	1298	CA	ILE	246A	32.073	57.766	35.289	1.00	36.15	A
	ATOM	1299	CB	ILE	246A	31.076	56.575	35.290	1.00	35.74	A
	ATOM	1300	CG2	ILE	246A	31.784	55.307	34.841	1.00	36.50	A
10	ATOM	1301	CG1	ILE	246A	30.494	56.372	36.693	1.00	34.53	A
	ATOM	1302	CD	ILE	246A	29.460	55.270	36.795	1.00	29.62	A
	ATOM	1303	C	ILE	246A	32.929	57.687	34.023	1.00	36.79	A
	ATOM	1304	O	ILE	246A	34.034	57.148	34.044	1.00	40.05	A
	ATOM	1305	N	ARG	247A	32.425	58.233	32.922	1.00	36.03	A
15	ATOM	1306	CA	ARG	247A	33.177	58.215	31.672	1.00	37.14	A
	ATOM	1307	CB	ARG	247A	32.272	58.641	30.508	1.00	34.99	A
	ATOM	1308	CG	ARG	247A	31.154	57.638	30.265	1.00	38.47	A
	ATOM	1309	CD	ARG	247A	30.209	58.033	29.159	1.00	39.66	A
	ATOM	1310	NE	ARG	247A	30.940	58.397	27.947	1.00	44.64	A
20	ATOM	1311	CZ	ARG	247A	30.443	58.319	26.713	1.00	45.25	A
	ATOM	1312	NH1	ARG	247A	29.198	57.875	26.510	1.00	41.13	A
	ATOM	1313	NH2	ARG	247A	31.192	58.708	25.684	1.00	44.13	A
	ATOM	1314	C	ARG	247A	34.418	59.100	31.754	1.00	37.30	A
	ATOM	1315	O	ARG	247A	35.472	58.754	31.223	1.00	38.63	A
25	ATOM	1316	N	ILE	248A	34.293	60.242	32.424	1.00	37.61	A
	ATOM	1317	CA	ILE	248A	35.416	61.159	32.582	1.00	34.20	A
	ATOM	1318	CB	ILE	248A	34.950	62.473	33.242	1.00	34.87	A
	ATOM	1319	CG2	ILE	248A	36.154	63.304	33.713	1.00	30.39	A
	ATOM	1320	CG1	ILE	248A	34.085	63.259	32.256	1.00	33.54	A
30	ATOM	1321	CD	ILE	248A	33.391	64.461	32.876	1.00	32.70	A
	ATOM	1322	C	ILE	248A	36.487	60.494	33.451	1.00	34.13	A
	ATOM	1323	O	ILE	248A	37.666	60.480	33.108	1.00	34.59	A
	ATOM	1324	N	LEU	249A	36.067	59.936	34.576	1.00	33.48	A
	ATOM	1325	CA	LEU	249A	36.995	59.272	35.477	1.00	35.02	A
35	ATOM	1326	CB	LEU	249A	36.243	58.703	36.681	1.00	32.81	A
	ATOM	1327	CG	LEU	249A	35.844	59.711	37.750	1.00	34.17	A
	ATOM	1328	CD1	LEU	249A	34.840	59.079	38.713	1.00	35.29	A
	ATOM	1329	CD2	LEU	249A	37.096	60.181	38.483	1.00	33.80	A
	ATOM	1330	C	LEU	249A	37.780	58.147	34.815	1.00	34.98	A
40	ATOM	1331	O	LEU	249A	38.914	57.883	35.192	1.00	33.73	A
	ATOM	1332	N	THR	250A	37.175	57.491	33.828	1.00	37.08	A
	ATOM	1333	CA	THR	250A	37.819	56.363	33.152	1.00	37.61	A
	ATOM	1334	CB	THR	250A	36.913	55.114	33.174	1.00	37.11	A
	ATOM	1335	OG1	THR	250A	35.720	55.377	32.422	1.00	36.65	A
45	ATOM	1336	CG2	THR	250A	36.538	54.745	34.602	1.00	36.33	A
	ATOM	1337	C	THR	250A	38.244	56.581	31.702	1.00	38.26	A
	ATOM	1338	O	THR	250A	38.440	55.610	30.975	1.00	39.23	A
	ATOM	1339	N	ASN	251A	38.401	57.829	31.279	1.00	38.20	A
	ATOM	1340	CA	ASN	251A	38.805	58.104	29.895	1.00	40.89	A
50	ATOM	1341	CB	ASN	251A	40.274	57.699	29.674	1.00	41.99	A
	ATOM	1342	CG	ASN	251A	40.845	58.236	28.361	1.00	41.17	A
	ATOM	1343	OD1	ASN	251A	40.680	59.416	28.046	1.00	42.48	A
	ATOM	1344	ND2	ASN	251A	41.534	57.380	27.607	1.00	39.33	A
	ATOM	1345	C	ASN	251A	37.913	57.352	28.898	1.00	41.52	A
55	ATOM	1346	O	ASN	251A	38.350	57.011	27.804	1.00	41.68	A
	ATOM	1347	N	ASN	252A	36.670	57.095	29.308	1.00	42.04	A
	ATOM	1348	CA	ASN	252A	35.666	56.399	28.508	1.00	43.76	A
	ATOM	1349	CB	ASN	252A	35.604	56.966	27.086	1.00	42.25	A
	ATOM	1350	CG	ASN	252A	34.804	58.249	27.006	1.00	43.43	A

	ATOM	1351	OD1	ASN	252A	33.677	58.330	27.507	1.00	42.52	A
	ATOM	1352	ND2	ASN	252A	35.373	59.255	26.364	1.00	43.01	A
	ATOM	1353	C	ASN	252A	35.775	54.885	28.422	1.00	43.90	A
	ATOM	1354	O	ASN	252A	35.142	54.280	27.567	1.00	46.86	A
5	ATOM	1355	N	SER	253A	36.558	54.266	29.294	1.00	43.67	A
	ATOM	1356	CA	SER	253A	36.694	52.813	29.273	1.00	43.23	A
	ATOM	1357	CB	SER	253A	37.824	52.372	30.197	1.00	43.01	A
	ATOM	1358	OG	SER	253A	37.508	52.688	31.537	1.00	48.46	A
	ATOM	1359	C	SER	253A	35.387	52.245	29.791	1.00	42.75	A
10	ATOM	1360	O	SER	253A	35.044	51.086	29.537	1.00	43.07	A
	ATOM	1361	N	GLN	254A	34.677	53.067	30.553	1.00	41.24	A
	ATOM	1362	CA	GLN	254A	33.400	52.670	31.116	1.00	40.47	A
	ATOM	1363	CB	GLN	254A	33.480	52.632	32.647	1.00	39.86	A
	ATOM	1364	CG	GLN	254A	34.254	51.449	33.223	1.00	39.59	A
15	ATOM	1365	CD	GLN	254A	34.251	51.421	34.761	1.00	40.96	A
	ATOM	1366	OE1	GLN	254A	33.218	51.646	35.399	1.00	38.99	A
	ATOM	1367	NE2	GLN	254A	35.409	51.126	35.354	1.00	39.49	A
	ATOM	1368	C	GLN	254A	32.328	53.662	30.662	1.00	40.23	A
	ATOM	1369	O	GLN	254A	32.390	54.850	30.979	1.00	36.25	A
20	ATOM	1370	N	THR	255A	31.358	53.155	29.906	1.00	40.44	A
	ATOM	1371	CA	THR	255A	30.253	53.957	29.395	1.00	39.61	A
	ATOM	1372	CB	THR	255A	30.336	54.096	27.868	1.00	38.79	A
	ATOM	1373	OG1	THR	255A	30.347	52.791	27.274	1.00	41.88	A
	ATOM	1374	CG2	THR	255A	31.601	54.822	27.474	1.00	38.07	A
25	ATOM	1375	C	THR	255A	28.929	53.292	29.761	1.00	39.15	A
	ATOM	1376	O	THR	255A	28.094	53.012	28.897	1.00	39.23	A
	ATOM	1377	N	PRO	256A	28.719	53.026	31.058	1.00	39.56	A
	ATOM	1378	CD	PRO	256A	29.503	53.418	32.243	1.00	39.44	A
	ATOM	1379	CA	PRO	256A	27.467	52.389	31.462	1.00	39.37	A
30	ATOM	1380	CB	PRO	256A	27.707	52.084	32.937	1.00	39.42	A
	ATOM	1381	CG	PRO	256A	28.481	53.280	33.371	1.00	39.85	A
	ATOM	1382	C	PRO	256A	26.269	53.313	31.260	1.00	38.85	A
	ATOM	1383	O	PRO	256A	26.401	54.541	31.272	1.00	36.74	A
	ATOM	1384	N	ILE	257A	25.108	52.700	31.054	1.00	37.73	A
35	ATOM	1385	CA	ILE	257A	23.849	53.411	30.888	1.00	35.82	A
	ATOM	1386	CB	ILE	257A	23.157	53.015	29.555	1.00	35.81	A
	ATOM	1387	CG2	ILE	257A	21.769	53.629	29.474	1.00	33.85	A
	ATOM	1388	CG1	ILE	257A	24.012	53.467	28.371	1.00	31.78	A
	ATOM	1389	CD	ILE	257A	24.184	54.969	28.267	1.00	32.99	A
40	ATOM	1390	C	ILE	257A	23.063	52.895	32.085	1.00	35.79	A
	ATOM	1391	O	ILE	257A	22.822	51.691	32.196	1.00	38.00	A
	ATOM	1392	N	LEU	258A	22.690	53.793	32.992	1.00	36.82	A
	ATOM	1393	CA	LEU	258A	21.986	53.392	34.211	1.00	38.72	A
	ATOM	1394	CB	LEU	258A	22.414	54.308	35.368	1.00	37.33	A
45	ATOM	1395	CG	LEU	258A	23.942	54.410	35.537	1.00	39.49	A
	ATOM	1396	CD1	LEU	258A	24.290	55.315	36.717	1.00	37.05	A
	ATOM	1397	CD2	LEU	258A	24.540	53.024	35.739	1.00	35.75	A
	ATOM	1398	C	LEU	258A	20.461	53.327	34.094	1.00	38.49	A
	ATOM	1399	O	LEU	258A	19.882	53.849	33.144	1.00	39.93	A
50	ATOM	1400	N	SER	259A	19.821	52.687	35.071	1.00	37.65	A
	ATOM	1401	CA	SER	259A	18.378	52.495	35.056	1.00	37.40	A
	ATOM	1402	CB	SER	259A	18.047	51.081	35.533	1.00	38.21	A
	ATOM	1403	OG	SER	259A	16.697	50.998	35.974	1.00	39.72	A
	ATOM	1404	C	SER	259A	17.481	53.464	35.808	1.00	38.11	A
55	ATOM	1405	O	SER	259A	17.370	53.399	37.038	1.00	38.13	A
	ATOM	1406	N	PRO	260A	16.810	54.373	35.075	1.00	37.88	A
	ATOM	1407	CD	PRO	260A	16.979	54.710	33.652	1.00	37.21	A
	ATOM	1408	CA	PRO	260A	15.915	55.330	35.731	1.00	37.33	A
	ATOM	1409	CB	PRO	260A	15.564	56.307	34.613	1.00	36.12	A

	ATOM	1410	CG	PRO	260A	15.723	55.480	33.373	1.00	39.26	A
	ATOM	1411	C	PRO	260A	14.688	54.617	36.284	1.00	36.98	A
	ATOM	1412	O	PRO	260A	14.087	55.068	37.258	1.00	36.95	A
	ATOM	1413	N	GLN	261A	14.333	53.490	35.670	1.00	37.04	A
5	ATOM	1414	CA	GLN	261A	13.169	52.725	36.102	1.00	36.28	A
	ATOM	1415	CB	GLN	261A	12.870	51.599	35.107	1.00	37.22	A
	ATOM	1416	CG	GLN	261A	11.547	50.889	35.360	1.00	35.67	A
	ATOM	1417	CD	GLN	261A	10.359	51.840	35.277	1.00	38.33	A
	ATOM	1418	OE1	GLN	261A	10.147	52.493	34.254	1.00	37.23	A
10	ATOM	1419	NE2	GLN	261A	9.584	51.926	36.358	1.00	36.15	A
	ATOM	1420	C	GLN	261A	13.382	52.138	37.494	1.00	38.10	A
	ATOM	1421	O	GLN	261A	12.450	52.074	38.300	1.00	39.34	A
	ATOM	1422	N	GLU	262A	14.609	51.701	37.769	1.00	38.49	A
	ATOM	1423	CA	GLU	262A	14.950	51.127	39.065	1.00	37.34	A
15	ATOM	1424	CB	GLU	262A	16.407	50.645	39.040	1.00	39.14	A
	ATOM	1425	CG	GLU	262A	16.888	49.872	40.274	1.00	40.48	A
	ATOM	1426	CD	GLU	262A	17.131	50.755	41.496	1.00	39.27	A
	ATOM	1427	OE1	GLU	262A	17.591	51.906	41.339	1.00	40.06	A
	ATOM	1428	OE2	GLU	262A	16.879	50.286	42.619	1.00	41.49	A
20	ATOM	1429	C	GLU	262A	14.730	52.204	40.130	1.00	36.93	A
	ATOM	1430	O	GLU	262A	14.235	51.921	41.222	1.00	38.01	A
	ATOM	1431	N	VAL	263A	15.066	53.445	39.790	1.00	36.20	A
	ATOM	1432	CA	VAL	263A	14.892	54.579	40.707	1.00	36.69	A
	ATOM	1433	CB	VAL	263A	15.606	55.855	40.170	1.00	33.82	A
25	ATOM	1434	CG1	VAL	263A	15.287	57.043	41.041	1.00	32.74	A
	ATOM	1435	CG2	VAL	263A	17.100	55.629	40.124	1.00	31.82	A
	ATOM	1436	C	VAL	263A	13.410	54.894	40.905	1.00	37.84	A
	ATOM	1437	O	VAL	263A	12.952	55.119	42.031	1.00	40.14	A
	ATOM	1438	N	VAL	264A	12.664	54.906	39.804	1.00	38.18	A
30	ATOM	1439	CA	VAL	264A	11.236	55.191	39.844	1.00	36.98	A
	ATOM	1440	CB	VAL	264A	10.655	55.271	38.409	1.00	36.34	A
	ATOM	1441	CG1	VAL	264A	9.130	55.216	38.445	1.00	35.48	A
	ATOM	1442	CG2	VAL	264A	11.111	56.567	37.745	1.00	34.31	A
	ATOM	1443	C	VAL	264A	10.460	54.149	40.642	1.00	37.72	A
35	ATOM	1444	O	VAL	264A	9.628	54.491	41.479	1.00	38.02	A
	ATOM	1445	N	SER	265A	10.751	52.878	40.398	1.00	38.76	A
	ATOM	1446	CA	SER	265A	10.041	51.798	41.072	1.00	41.55	A
	ATOM	1447	CB	SER	265A	10.010	50.555	40.174	1.00	41.67	A
	ATOM	1448	OG	SER	265A	9.404	50.831	38.918	1.00	44.06	A
40	ATOM	1449	C	SER	265A	10.562	51.382	42.445	1.00	43.21	A
	ATOM	1450	O	SER	265A	9.784	50.963	43.299	1.00	44.21	A
	ATOM	1451	N	CYS	266A	11.865	51.503	42.673	1.00	44.13	A
	ATOM	1452	CA	CYS	266A	12.432	51.050	43.937	1.00	44.73	A
	ATOM	1453	C	CYS	266A	12.892	52.058	44.987	1.00	44.19	A
45	ATOM	1454	O	CYS	266A	12.934	51.727	46.177	1.00	44.18	A
	ATOM	1455	CB	CYS	266A	13.600	50.127	43.639	1.00	46.49	A
	ATOM	1456	SG	CYS	266A	13.244	48.824	42.420	1.00	51.76	A
	ATOM	1457	N	SER	267A	13.253	53.269	44.576	1.00	41.96	A
	ATOM	1458	CA	SER	267A	13.739	54.234	45.553	1.00	40.12	A
50	ATOM	1459	CB	SER	267A	14.471	55.375	44.861	1.00	39.92	A
	ATOM	1460	OG	SER	267A	14.972	56.272	45.832	1.00	40.81	A
	ATOM	1461	C	SER	267A	12.707	54.827	46.502	1.00	38.99	A
	ATOM	1462	O	SER	267A	11.676	55.338	46.077	1.00	39.65	A
	ATOM	1463	N	PRO	268A	12.981	54.760	47.816	1.00	38.44	A
55	ATOM	1464	CD	PRO	268A	14.005	53.881	48.402	1.00	37.65	A
	ATOM	1465	CA	PRO	268A	12.101	55.292	48.864	1.00	35.89	A
	ATOM	1466	CB	PRO	268A	12.499	54.494	50.105	1.00	36.08	A
	ATOM	1467	CG	PRO	268A	13.272	53.325	49.581	1.00	37.44	A
	ATOM	1468	C	PRO	268A	12.375	56.781	49.073	1.00	35.37	A

	ATOM	1469	O	PRO	268A	11.638	57.467	49.781	1.00	36.17	A
	ATOM	1470	N	TYR	269A	13.449	57.265	48.456	1.00	35.01	A
	ATOM	1471	CA	TYR	269A	13.861	58.662	48.582	1.00	35.51	A
	ATOM	1472	CB	TYR	269A	15.395	58.758	48.502	1.00	34.09	A
5	ATOM	1473	CG	TYR	269A	16.132	57.987	49.584	1.00	31.19	A
	ATOM	1474	CD1	TYR	269A	17.465	57.601	49.406	1.00	33.14	A
	ATOM	1475	CE1	TYR	269A	18.155	56.904	50.399	1.00	30.62	A
	ATOM	1476	CD2	TYR	269A	15.505	57.654	50.790	1.00	33.10	A
	ATOM	1477	CE2	TYR	269A	16.180	56.958	51.789	1.00	31.98	A
10	ATOM	1478	CZ	TYR	269A	17.505	56.586	51.587	1.00	35.23	A
	ATOM	1479	OH	TYR	269A	18.166	55.884	52.566	1.00	35.61	A
	ATOM	1480	C	TYR	269A	13.222	59.568	47.529	1.00	37.76	A
	ATOM	1481	O	TYR	269A	13.458	60.774	47.514	1.00	36.54	A
	ATOM	1482	N	ALA	270A	12.412	58.982	46.651	1.00	39.38	A
15	ATOM	1483	CA	ALA	270A	11.728	59.744	45.612	1.00	41.06	A
	ATOM	1484	CB	ALA	270A	12.429	59.550	44.262	1.00	36.90	A
	ATOM	1485	C	ALA	270A	10.269	59.278	45.537	1.00	42.23	A
	ATOM	1486	O	ALA	270A	9.887	58.314	46.203	1.00	42.39	A
	ATOM	1487	N	GLN	271A	9.456	59.964	44.738	1.00	42.82	A
20	ATOM	1488	CA	GLN	271A	8.045	59.596	44.597	1.00	42.42	A
	ATOM	1489	CB	GLN	271A	7.146	60.811	44.863	1.00	41.11	A
	ATOM	1490	CG	GLN	271A	7.094	61.264	46.314	1.00	41.38	A
	ATOM	1491	CD	GLN	271A	8.424	61.793	46.821	1.00	43.54	A
	ATOM	1492	OE1	GLN	271A	9.008	62.701	46.233	1.00	43.51	A
25	ATOM	1493	NE2	GLN	271A	8.905	61.229	47.928	1.00	45.29	A
	ATOM	1494	C	GLN	271A	7.699	59.014	43.227	1.00	41.04	A
	ATOM	1495	O	GLN	271A	6.713	59.415	42.630	1.00	42.09	A
	ATOM	1496	N	GLY	272A	8.506	58.077	42.738	1.00	41.01	A
	ATOM	1497	CA	GLY	272A	8.242	57.459	41.447	1.00	41.41	A
30	ATOM	1498	C	GLY	272A	8.029	58.440	40.304	1.00	42.42	A
	ATOM	1499	O	GLY	272A	8.843	59.330	40.093	1.00	44.08	A
	ATOM	1500	N	CYS	273A	6.938	58.281	39.557	1.00	42.70	A
	ATOM	1501	CA	CYS	273A	6.646	59.178	38.437	1.00	42.29	A
	ATOM	1502	C	CYS	273A	6.087	60.495	38.930	1.00	40.99	A
35	ATOM	1503	O	CYS	273A	5.794	61.397	38.143	1.00	38.45	A
	ATOM	1504	CB	CYS	273A	5.647	58.544	37.462	1.00	42.74	A
	ATOM	1505	SG	CYS	273A	6.384	57.252	36.415	1.00	44.12	A
	ATOM	1506	N	ASP	274A	5.962	60.615	40.243	1.00	39.75	A
	ATOM	1507	CA	ASP	274A	5.433	61.830	40.810	1.00	40.44	A
40	ATOM	1508	CB	ASP	274A	4.435	61.475	41.909	1.00	45.10	A
	ATOM	1509	CG	ASP	274A	3.102	61.031	41.341	1.00	47.73	A
	ATOM	1510	OD1	ASP	274A	2.418	61.886	40.739	1.00	49.54	A
	ATOM	1511	OD2	ASP	274A	2.745	59.837	41.472	1.00	50.45	A
	ATOM	1512	C	ASP	274A	6.485	62.813	41.305	1.00	40.95	A
45	ATOM	1513	O	ASP	274A	6.204	63.667	42.151	1.00	39.38	A
	ATOM	1514	N	GLY	275A	7.699	62.696	40.771	1.00	40.80	A
	ATOM	1515	CA	GLY	275A	8.748	63.625	41.151	1.00	42.71	A
	ATOM	1516	C	GLY	275A	9.830	63.163	42.112	1.00	43.28	A
	ATOM	1517	O	GLY	275A	9.703	62.146	42.808	1.00	43.35	A
50	ATOM	1518	N	GLY	276A	10.907	63.942	42.145	1.00	42.77	A
	ATOM	1519	CA	GLY	276A	12.036	63.640	43.003	1.00	40.83	A
	ATOM	1520	C	GLY	276A	13.139	64.676	42.877	1.00	40.58	A
	ATOM	1521	O	GLY	276A	13.030	65.659	42.120	1.00	37.62	A
	ATOM	1522	N	PHE	277A	14.222	64.446	43.613	1.00	39.12	A
55	ATOM	1523	CA	PHE	277A	15.343	65.374	43.606	1.00	37.84	A
	ATOM	1524	CB	PHE	277A	15.247	66.274	44.838	1.00	34.99	A
	ATOM	1525	CG	PHE	277A	14.021	67.136	44.836	1.00	37.51	A
	ATOM	1526	CD1	PHE	277A	14.024	68.377	44.196	1.00	37.58	A
	ATOM	1527	CD2	PHE	277A	12.824	66.666	45.384	1.00	37.52	A

	ATOM	1528	CE1	PHE	277A	12.850	69.132	44.099	1.00	37.51	A
	ATOM	1529	CE2	PHE	277A	11.650	67.410	45.290	1.00	34.66	A
	ATOM	1530	CZ	PHE	277A	11.662	68.641	44.648	1.00	37.24	A
	ATOM	1531	C	PHE	277A	16.708	64.699	43.534	1.00	36.81	A
5	ATOM	1532	O	PHE	277A	17.002	63.762	44.279	1.00	35.89	A
	ATOM	1533	N	PRO	278A	17.558	65.175	42.617	1.00	34.80	A
	ATOM	1534	CD	PRO	278A	17.269	66.252	41.654	1.00	32.65	A
	ATOM	1535	CA	PRO	278A	18.908	64.648	42.417	1.00	33.98	A
	ATOM	1536	CB	PRO	278A	19.553	65.713	41.544	1.00	32.52	A
10	ATOM	1537	CG	PRO	278A	18.403	66.115	40.662	1.00	34.07	A
	ATOM	1538	C	PRO	278A	19.680	64.403	43.717	1.00	33.61	A
	ATOM	1539	O	PRO	278A	20.273	63.336	43.894	1.00	34.87	A
	ATOM	1540	N	TYR	279A	19.664	65.372	44.627	1.00	32.40	A
	ATOM	1541	CA	TYR	279A	20.392	65.219	45.884	1.00	33.33	A
15	ATOM	1542	CB	TYR	279A	20.052	66.346	46.862	1.00	31.83	A
	ATOM	1543	CG	TYR	279A	20.864	66.306	48.144	1.00	29.53	A
	ATOM	1544	CD1	TYR	279A	22.039	67.040	48.265	1.00	30.23	A
	ATOM	1545	CE1	TYR	279A	22.781	67.032	49.450	1.00	29.19	A
	ATOM	1546	CD2	TYR	279A	20.448	65.551	49.242	1.00	28.64	A
20	ATOM	1547	CE2	TYR	279A	21.182	65.536	50.435	1.00	28.57	A
	ATOM	1548	CZ	TYR	279A	22.347	66.283	50.527	1.00	31.12	A
	ATOM	1549	OH	TYR	279A	23.080	66.302	51.689	1.00	32.16	A
	ATOM	1550	C	TYR	279A	20.086	63.884	46.553	1.00	33.38	A
	ATOM	1551	O	TYR	279A	20.976	63.248	47.115	1.00	32.71	A
25	ATOM	1552	N	LEU	280A	18.823	63.471	46.498	1.00	33.56	A
	ATOM	1553	CA	LEU	280A	18.404	62.216	47.110	1.00	32.72	A
	ATOM	1554	CB	LEU	280A	16.946	62.316	47.569	1.00	30.95	A
	ATOM	1555	CG	LEU	280A	16.717	63.207	48.796	1.00	33.52	A
	ATOM	1556	CD1	LEU	280A	15.235	63.503	48.955	1.00	30.68	A
30	ATOM	1557	CD2	LEU	280A	17.277	62.537	50.042	1.00	27.93	A
	ATOM	1558	C	LEU	280A	18.575	61.000	46.212	1.00	32.93	A
	ATOM	1559	O	LEU	280A	18.524	59.872	46.688	1.00	36.67	A
	ATOM	1560	N	ILE	281A	18.777	61.210	44.918	1.00	33.23	A
	ATOM	1561	CA	ILE	281A	18.949	60.074	44.027	1.00	33.80	A
35	ATOM	1562	CB	ILE	281A	18.021	60.172	42.798	1.00	33.20	A
	ATOM	1563	CG2	ILE	281A	18.323	59.047	41.816	1.00	30.45	A
	ATOM	1564	CG1	ILE	281A	16.562	60.080	43.262	1.00	33.58	A
	ATOM	1565	CD	ILE	281A	16.263	58.847	44.129	1.00	31.12	A
	ATOM	1566	C	ILE	281A	20.393	59.901	43.582	1.00	35.77	A
40	ATOM	1567	O	ILE	281A	21.016	58.881	43.884	1.00	37.82	A
	ATOM	1568	N	ALA	282A	20.927	60.884	42.865	1.00	35.65	A
	ATOM	1569	CA	ALA	282A	22.316	60.818	42.416	1.00	34.08	A
	ATOM	1570	CB	ALA	282A	22.651	62.029	41.562	1.00	31.21	A
	ATOM	1571	C	ALA	282A	23.218	60.784	43.651	1.00	32.63	A
45	ATOM	1572	O	ALA	282A	24.308	60.235	43.619	1.00	29.37	A
	ATOM	1573	N	GLY	283A	22.735	61.376	44.739	1.00	32.26	A
	ATOM	1574	CA	GLY	283A	23.499	61.413	45.967	1.00	31.03	A
	ATOM	1575	C	GLY	283A	23.152	60.313	46.944	1.00	32.97	A
	ATOM	1576	O	GLY	283A	23.699	59.215	46.858	1.00	35.49	A
50	ATOM	1577	N	LYS	284A	22.217	60.598	47.850	1.00	33.10	A
	ATOM	1578	CA	LYS	284A	21.813	59.656	48.892	1.00	33.40	A
	ATOM	1579	CB	LYS	284A	20.697	60.254	49.747	1.00	33.97	A
	ATOM	1580	CG	LYS	284A	20.525	59.526	51.059	1.00	34.36	A
	ATOM	1581	CD	LYS	284A	19.599	60.265	52.003	1.00	34.63	A
55	ATOM	1582	CE	LYS	284A	19.643	59.613	53.362	1.00	33.62	A
	ATOM	1583	NZ	LYS	284A	21.047	59.576	53.850	1.00	30.96	A
	ATOM	1584	C	LYS	284A	21.404	58.257	48.462	1.00	35.20	A
	ATOM	1585	O	LYS	284A	21.872	57.271	49.034	1.00	35.09	A
	ATOM	1586	N	TYR	285A	20.527	58.151	47.472	1.00	36.42	A

	ATOM	1587	CA	TYR	285A	20.106	56.828	47.033	1.00	34.23	A
	ATOM	1588	CB	TYR	285A	18.952	56.917	46.035	1.00	36.53	A
	ATOM	1589	CG	TYR	285A	18.394	55.556	45.691	1.00	35.00	A
	ATOM	1590	CD1	TYR	285A	18.710	54.930	44.490	1.00	34.50	A
5	ATOM	1591	CE1	TYR	285A	18.250	53.646	44.205	1.00	34.12	A
	ATOM	1592	CD2	TYR	285A	17.600	54.868	46.600	1.00	35.00	A
	ATOM	1593	CE2	TYR	285A	17.135	53.585	46.324	1.00	36.73	A
	ATOM	1594	CZ	TYR	285A	17.464	52.981	45.127	1.00	35.02	A
	ATOM	1595	OH	TYR	285A	17.006	51.711	44.862	1.00	37.66	A
10	ATOM	1596	C	TYR	285A	21.258	56.047	46.417	1.00	32.05	A
	ATOM	1597	O	TYR	285A	21.412	54.857	46.674	1.00	32.50	A
	ATOM	1598	N	ALA	286A	22.068	56.712	45.605	1.00	30.67	A
	ATOM	1599	CA	ALA	286A	23.200	56.046	44.982	1.00	30.25	A
	ATOM	1600	CB	ALA	286A	23.870	56.972	43.973	1.00	30.48	A
15	ATOM	1601	C	ALA	286A	24.206	55.596	46.044	1.00	30.08	A
	ATOM	1602	O	ALA	286A	24.786	54.527	45.936	1.00	31.60	A
	ATOM	1603	N	GLN	287A	24.397	56.402	47.082	1.00	29.96	A
	ATOM	1604	CA	GLN	287A	25.334	56.046	48.133	1.00	30.93	A
	ATOM	1605	CB	GLN	287A	25.632	57.249	49.037	1.00	31.52	A
20	ATOM	1606	CG	GLN	287A	26.672	56.942	50.133	1.00	28.69	A
	ATOM	1607	CD	GLN	287A	27.175	58.184	50.858	1.00	27.66	A
	ATOM	1608	OE1	GLN	287A	26.565	58.661	51.807	1.00	29.41	A
	ATOM	1609	NE2	GLN	287A	28.294	58.713	50.401	1.00	25.90	A
	ATOM	1610	C	GLN	287A	24.857	54.892	49.004	1.00	32.88	A
25	ATOM	1611	O	GLN	287A	25.616	53.966	49.285	1.00	33.05	A
	ATOM	1612	N	ASP	288A	23.599	54.951	49.429	1.00	34.78	A
	ATOM	1613	CA	ASP	288A	23.036	53.931	50.308	1.00	35.27	A
	ATOM	1614	CB	ASP	288A	21.788	54.469	51.021	1.00	35.40	A
	ATOM	1615	CG	ASP	288A	22.076	55.684	51.880	1.00	36.07	A
30	ATOM	1616	OD1	ASP	288A	23.260	56.074	52.013	1.00	34.22	A
	ATOM	1617	OD2	ASP	288A	21.104	56.249	52.428	1.00	38.37	A
	ATOM	1618	C	ASP	288A	22.679	52.608	49.645	1.00	36.84	A
	ATOM	1619	O	ASP	288A	23.103	51.543	50.107	1.00	38.18	A
	ATOM	1620	N	PHE	289A	21.900	52.666	48.570	1.00	35.88	A
35	ATOM	1621	CA	PHE	289A	21.483	51.445	47.901	1.00	35.38	A
	ATOM	1622	CB	PHE	289A	19.962	51.433	47.774	1.00	36.47	A
	ATOM	1623	CG	PHE	289A	19.265	51.516	49.092	1.00	34.50	A
	ATOM	1624	CD1	PHE	289A	18.711	52.710	49.521	1.00	30.47	A
	ATOM	1625	CD2	PHE	289A	19.239	50.407	49.943	1.00	32.79	A
40	ATOM	1626	CE1	PHE	289A	18.145	52.806	50.780	1.00	32.45	A
	ATOM	1627	CE2	PHE	289A	18.677	50.492	51.204	1.00	30.88	A
	ATOM	1628	CZ	PHE	289A	18.129	51.692	51.628	1.00	32.10	A
	ATOM	1629	C	PHE	289A	22.121	51.209	46.551	1.00	36.83	A
	ATOM	1630	O	PHE	289A	22.162	50.073	46.072	1.00	36.79	A
45	ATOM	1631	N	GLY	290A	22.620	52.279	45.940	1.00	36.35	A
	ATOM	1632	CA	GLY	290A	23.256	52.143	44.646	1.00	35.38	A
	ATOM	1633	C	GLY	290A	22.258	52.044	43.513	1.00	35.17	A
	ATOM	1634	O	GLY	290A	21.080	51.764	43.722	1.00	33.61	A
	ATOM	1635	N	VAL	291A	22.734	52.287	42.302	1.00	34.90	A
50	ATOM	1636	CA	VAL	291A	21.882	52.221	41.127	1.00	35.89	A
	ATOM	1637	CB	VAL	291A	21.831	53.596	40.393	1.00	33.89	A
	ATOM	1638	CG1	VAL	291A	21.178	54.632	41.294	1.00	32.52	A
	ATOM	1639	CG2	VAL	291A	23.222	54.042	39.999	1.00	28.67	A
	ATOM	1640	C	VAL	291A	22.396	51.126	40.191	1.00	36.94	A
55	ATOM	1641	O	VAL	291A	23.573	50.766	40.230	1.00	38.13	A
	ATOM	1642	N	VAL	292A	21.511	50.596	39.357	1.00	38.19	A
	ATOM	1643	CA	VAL	292A	21.876	49.518	38.443	1.00	40.35	A
	ATOM	1644	CB	VAL	292A	20.929	48.324	38.638	1.00	38.97	A
	ATOM	1645	CG1	VAL	292A	20.918	47.898	40.108	1.00	39.22	A

	ATOM	1646	CG2	VAL	292A	19.538	48.712	38.215	1.00	39.42	A
	ATOM	1647	C	VAL	292A	21.828	49.953	36.981	1.00	40.36	A
	ATOM	1648	O	VAL	292A	21.317	51.023	36.655	1.00	41.44	A
	ATOM	1649	N	GLU	293A	22.361	49.118	36.102	1.00	41.38	A
5	ATOM	1650	CA	GLU	293A	22.361	49.422	34.675	1.00	43.50	A
	ATOM	1651	CB	GLU	293A	23.344	48.502	33.948	1.00	43.25	A
	ATOM	1652	CG	GLU	293A	24.784	48.857	34.245	1.00	47.94	A
	ATOM	1653	CD	GLU	293A	25.797	47.903	33.631	1.00	49.86	A
	ATOM	1654	OE1	GLU	293A	25.661	47.559	32.436	1.00	51.82	A
10	ATOM	1655	OE2	GLU	293A	26.750	47.514	34.346	1.00	52.30	A
	ATOM	1656	C	GLU	293A	20.969	49.290	34.064	1.00	43.66	A
	ATOM	1657	O	GLU	293A	20.083	48.643	34.634	1.00	41.20	A
	ATOM	1658	N	GLU	294A	20.786	49.918	32.905	1.00	44.62	A
	ATOM	1659	CA	GLU	294A	19.511	49.885	32.189	1.00	45.81	A
15	ATOM	1660	CB	GLU	294A	19.653	50.596	30.837	1.00	47.40	A
	ATOM	1661	CG	GLU	294A	18.392	50.591	29.953	1.00	46.42	A
	ATOM	1662	CD	GLU	294A	17.219	51.359	30.559	1.00	47.46	A
	ATOM	1663	OE1	GLU	294A	17.438	52.210	31.459	1.00	47.71	A
	ATOM	1664	OE2	GLU	294A	16.072	51.119	30.119	1.00	46.54	A
20	ATOM	1665	C	GLU	294A	19.002	48.459	31.957	1.00	45.85	A
	ATOM	1666	O	GLU	294A	17.869	48.140	32.321	1.00	46.09	A
	ATOM	1667	N	ASN	295A	19.832	47.611	31.348	1.00	45.92	A
	ATOM	1668	CA	ASN	295A	19.442	46.224	31.073	1.00	48.50	A
	ATOM	1669	CB	ASN	295A	20.634	45.393	30.585	1.00	52.82	A
25	ATOM	1670	CG	ASN	295A	20.273	43.906	30.400	1.00	56.31	A
	ATOM	1671	OD1	ASN	295A	19.787	43.494	29.336	1.00	58.48	A
	ATOM	1672	ND2	ASN	295A	20.489	43.106	31.447	1.00	57.52	A
	ATOM	1673	C	ASN	295A	18.845	45.515	32.284	1.00	47.81	A
	ATOM	1674	O	ASN	295A	18.079	44.568	32.136	1.00	48.35	A
30	ATOM	1675	N	CYS	296A	19.199	45.964	33.482	1.00	47.38	A
	ATOM	1676	CA	CYS	296A	18.690	45.339	34.693	1.00	45.93	A
	ATOM	1677	C	CYS	296A	17.227	45.668	34.950	1.00	44.41	A
	ATOM	1678	O	CYS	296A	16.500	44.882	35.563	1.00	45.06	A
	ATOM	1679	CB	CYS	296A	19.509	45.785	35.892	1.00	47.03	A
35	ATOM	1680	SG	CYS	296A	19.043	44.944	37.436	1.00	49.47	A
	ATOM	1681	N	PHE	297A	16.795	46.839	34.504	1.00	42.89	A
	ATOM	1682	CA	PHE	297A	15.413	47.242	34.710	1.00	43.21	A
	ATOM	1683	CB	PHE	297A	15.242	47.796	36.133	1.00	42.48	A
	ATOM	1684	CG	PHE	297A	13.815	47.781	36.644	1.00	44.17	A
40	ATOM	1685	CD1	PHE	297A	13.556	47.956	38.008	1.00	41.93	A
	ATOM	1686	CD2	PHE	297A	12.732	47.620	35.773	1.00	44.10	A
	ATOM	1687	CE1	PHE	297A	12.245	47.975	38.498	1.00	43.72	A
	ATOM	1688	CE2	PHE	297A	11.407	47.635	36.255	1.00	42.88	A
	ATOM	1689	CZ	PHE	297A	11.161	47.813	37.614	1.00	43.34	A
45	ATOM	1690	C	PHE	297A	15.073	48.289	33.660	1.00	43.23	A
	ATOM	1691	O	PHE	297A	15.108	49.496	33.927	1.00	42.82	A
	ATOM	1692	N	PRO	298A	14.759	47.831	32.432	1.00	43.64	A
	ATOM	1693	CD	PRO	298A	14.776	46.407	32.041	1.00	42.49	A
	ATOM	1694	CA	PRO	298A	14.401	48.682	31.287	1.00	42.18	A
50	ATOM	1695	CB	PRO	298A	13.940	47.667	30.242	1.00	42.07	A
	ATOM	1696	CG	PRO	298A	14.840	46.491	30.525	1.00	43.28	A
	ATOM	1697	C	PRO	298A	13.313	49.690	31.647	1.00	41.96	A
	ATOM	1698	O	PRO	298A	12.410	49.387	32.428	1.00	42.45	A
	ATOM	1699	N	TYR	299A	13.396	50.884	31.067	1.00	41.48	A
55	ATOM	1700	CA	TYR	299A	12.436	51.949	31.351	1.00	40.56	A
	ATOM	1701	CB	TYR	299A	13.041	53.293	30.939	1.00	38.60	A
	ATOM	1702	CG	TYR	299A	12.250	54.505	31.373	1.00	36.11	A
	ATOM	1703	CD1	TYR	299A	11.963	54.730	32.723	1.00	35.97	A
	ATOM	1704	CE1	TYR	299A	11.256	55.873	33.134	1.00	36.07	A

	ATOM	1705	CD2	TYR	299A	11.816	55.448	30.440	1.00	34.09	A
	ATOM	1706	CE2	TYR	299A	11.117	56.591	30.836	1.00	36.07	A
	ATOM	1707	CZ	TYR	299A	10.839	56.795	32.186	1.00	35.60	A
	ATOM	1708	OH	TYR	299A	10.134	57.907	32.578	1.00	35.47	A
5	ATOM	1709	C	TYR	299A	11.073	51.765	30.671	1.00	41.47	A
	ATOM	1710	O	TYR	299A	10.998	51.459	29.478	1.00	41.13	A
	ATOM	1711	N	THR	300A	10.004	51.961	31.441	1.00	41.13	A
	ATOM	1712	CA	THR	300A	8.638	51.832	30.932	1.00	42.19	A
	ATOM	1713	CB	THR	300A	7.911	50.620	31.558	1.00	43.22	A
10	ATOM	1714	OG1	THR	300A	7.827	50.793	32.978	1.00	42.85	A
	ATOM	1715	CG2	THR	300A	8.659	49.316	31.244	1.00	41.81	A
	ATOM	1716	C	THR	300A	7.801	53.084	31.217	1.00	43.59	A
	ATOM	1717	O	THR	300A	6.611	53.137	30.887	1.00	43.93	A
	ATOM	1718	N	ALA	301A	8.416	54.094	31.831	1.00	42.47	A
15	ATOM	1719	CA	ALA	301A	7.704	55.329	32.140	1.00	41.74	A
	ATOM	1720	CB	ALA	301A	7.255	56.007	30.845	1.00	38.73	A
	ATOM	1721	C	ALA	301A	6.495	55.073	33.041	1.00	42.21	A
	ATOM	1722	O	ALA	301A	5.487	55.775	32.951	1.00	44.95	A
	ATOM	1723	N	THR	302A	6.581	54.069	33.905	1.00	42.25	A
20	ATOM	1724	CA	THR	302A	5.464	53.781	34.802	1.00	44.75	A
	ATOM	1725	CB	THR	302A	4.665	52.546	34.344	1.00	45.00	A
	ATOM	1726	OG1	THR	302A	5.582	51.495	34.007	1.00	46.28	A
	ATOM	1727	CG2	THR	302A	3.782	52.880	33.141	1.00	44.67	A
	ATOM	1728	C	THR	302A	5.891	53.515	36.235	1.00	46.06	A
25	ATOM	1729	O	THR	302A	7.053	53.204	36.515	1.00	46.42	A
	ATOM	1730	N	ASP	303A	4.938	53.642	37.147	1.00	46.71	A
	ATOM	1731	CA	ASP	303A	5.210	53.363	38.541	1.00	46.34	A
	ATOM	1732	CB	ASP	303A	4.196	54.081	39.437	1.00	45.96	A
	ATOM	1733	CG	ASP	303A	4.553	55.550	39.657	1.00	46.49	A
30	ATOM	1734	OD1	ASP	303A	3.642	56.400	39.730	1.00	48.18	A
	ATOM	1735	OD2	ASP	303A	5.752	55.860	39.772	1.00	48.24	A
	ATOM	1736	C	ASP	303A	5.118	51.847	38.683	1.00	46.99	A
	ATOM	1737	O	ASP	303A	4.383	51.323	39.524	1.00	47.05	A
	ATOM	1738	N	ALA	304A	5.874	51.152	37.836	1.00	45.82	A
35	ATOM	1739	CA	ALA	304A	5.916	49.695	37.839	1.00	47.64	A
	ATOM	1740	CB	ALA	304A	6.810	49.199	36.697	1.00	45.89	A
	ATOM	1741	C	ALA	304A	6.442	49.163	39.174	1.00	48.95	A
	ATOM	1742	O	ALA	304A	7.129	49.874	39.906	1.00	49.00	A
	ATOM	1743	N	PRO	305A	6.122	47.898	39.504	1.00	50.16	A
40	ATOM	1744	CD	PRO	305A	5.187	47.021	38.777	1.00	49.48	A
	ATOM	1745	CA	PRO	305A	6.566	47.263	40.753	1.00	50.12	A
	ATOM	1746	CB	PRO	305A	5.910	45.881	40.694	1.00	49.68	A
	ATOM	1747	CG	PRO	305A	4.670	46.129	39.881	1.00	50.46	A
	ATOM	1748	C	PRO	305A	8.088	47.161	40.782	1.00	50.86	A
45	ATOM	1749	O	PRO	305A	8.740	47.131	39.728	1.00	51.09	A
	ATOM	1750	N	CYS	306A	8.665	47.092	41.976	1.00	50.84	A
	ATOM	1751	CA	CYS	306A	10.116	47.003	42.062	1.00	50.14	A
	ATOM	1752	C	CYS	306A	10.604	45.564	41.878	1.00	49.78	A
	ATOM	1753	O	CYS	306A	10.632	44.775	42.829	1.00	48.40	A
50	ATOM	1754	CB	CYS	306A	10.616	47.584	43.393	1.00	48.98	A
	ATOM	1755	SG	CYS	306A	12.412	47.353	43.561	1.00	49.71	A
	ATOM	1756	N	LYS	307A	11.005	45.236	40.649	1.00	50.32	A
	ATOM	1757	CA	LYS	307A	11.469	43.889	40.331	1.00	51.81	A
	ATOM	1758	CB	LYS	307A	10.297	43.058	39.768	1.00	52.79	A
55	ATOM	1759	CG	LYS	307A	9.186	42.715	40.797	1.00	56.05	A
	ATOM	1760	CD	LYS	307A	8.050	41.847	40.202	1.00	53.84	A
	ATOM	1761	CE	LYS	307A	6.876	41.616	41.155	1.00	53.81	A
	ATOM	1762	NZ	LYS	307A	5.684	41.017	40.432	1.00	51.94	A
	ATOM	1763	C	LYS	307A	12.639	43.857	39.347	1.00	52.37	A

	ATOM	1764	O	LYS	307A	12.526	43.323	38.243	1.00	54.06	A
	ATOM	1765	N	PRO	308A	13.794	44.405	39.732	1.00	51.54	A
	ATOM	1766	CD	PRO	308A	14.245	44.937	41.032	1.00	51.18	A
	ATOM	1767	CA	PRO	308A	14.891	44.354	38.760	1.00	49.80	A
5	ATOM	1768	CB	PRO	308A	15.951	45.226	39.412	1.00	50.54	A
	ATOM	1769	CG	PRO	308A	15.755	44.906	40.890	1.00	50.56	A
	ATOM	1770	C	PRO	308A	15.363	42.916	38.584	1.00	50.43	A
	ATOM	1771	O	PRO	308A	14.978	42.036	39.363	1.00	49.06	A
	ATOM	1772	N	LYS	309A	16.191	42.671	37.567	1.00	51.35	A
10	ATOM	1773	CA	LYS	309A	16.725	41.331	37.348	1.00	53.39	A
	ATOM	1774	CB	LYS	309A	17.717	41.309	36.173	1.00	52.85	A
	ATOM	1775	CG	LYS	309A	17.057	41.449	34.809	1.00	53.90	A
	ATOM	1776	CD	LYS	309A	17.979	41.053	33.655	1.00	53.55	A
	ATOM	1777	CE	LYS	309A	17.190	41.040	32.337	1.00	54.15	A
15	ATOM	1778	NZ	LYS	309A	18.045	40.774	31.128	1.00	55.80	A
	ATOM	1779	C	LYS	309A	17.438	40.903	38.635	1.00	55.24	A
	ATOM	1780	O	LYS	309A	17.607	41.706	39.558	1.00	54.49	A
	ATOM	1781	N	GLU	310A	17.564	39.728	39.033	1.00	57.19	A
	ATOM	1782	CA	GLU	310A	18.420	39.434	40.177	1.00	58.47	A
20	ATOM	1783	CB	GLU	310A	17.964	38.142	40.868	1.00	62.70	A
	ATOM	1784	CG	GLU	310A	16.623	38.276	41.594	1.00	67.69	A
	ATOM	1785	CD	GLU	310A	16.233	36.991	42.323	1.00	70.48	A
	ATOM	1786	OE1	GLU	310A	16.881	35.935	42.095	1.00	71.31	A
	ATOM	1787	OE2	GLU	310A	15.271	37.047	43.126	1.00	72.31	A
25	ATOM	1788	C	GLU	310A	19.895	39.329	39.849	1.00	57.33	A
	ATOM	1789	O	GLU	310A	20.302	38.598	38.938	1.00	55.05	A
	ATOM	1790	N	ASN	311A	20.320	40.046	41.173	1.00	56.73	A
	ATOM	1791	CA	ASN	311A	21.671	40.472	41.510	1.00	56.06	A
	ATOM	1792	CB	ASN	311A	22.446	39.264	42.018	1.00	59.97	A
30	ATOM	1793	CG	ASN	311A	21.679	38.504	43.087	1.00	63.92	A
	ATOM	1794	OD1	ASN	311A	20.897	39.099	43.851	1.00	65.21	A
	ATOM	1795	ND2	ASN	311A	21.895	37.189	43.157	1.00	63.92	A
	ATOM	1796	C	ASN	311A	22.491	41.204	40.442	1.00	54.41	A
	ATOM	1797	O	ASN	311A	23.594	40.780	40.093	1.00	52.52	A
35	ATOM	1798	N	CYS	312A	21.962	42.308	39.928	1.00	52.59	A
	ATOM	1799	CA	CYS	312A	22.710	43.087	38.946	1.00	50.88	A
	ATOM	1800	C	CYS	312A	23.775	43.884	39.706	1.00	48.44	A
	ATOM	1801	O	CYS	312A	23.632	44.140	40.908	1.00	46.22	A
	ATOM	1802	CB	CYS	312A	21.805	44.078	38.226	1.00	52.87	A
40	ATOM	1803	SG	CYS	312A	20.323	43.370	37.445	1.00	55.87	A
	ATOM	1804	N	LEU	313A	24.834	44.269	38.999	1.00	44.82	A
	ATOM	1805	CA	LEU	313A	25.904	45.047	39.593	1.00	41.50	A
	ATOM	1806	CB	LEU	313A	26.996	45.316	38.561	1.00	41.51	A
	ATOM	1807	CG	LEU	313A	28.136	46.230	39.006	1.00	41.80	A
45	ATOM	1808	CD1	LEU	313A	28.929	45.551	40.114	1.00	43.15	A
	ATOM	1809	CD2	LEU	313A	29.034	46.528	37.829	1.00	42.57	A
	ATOM	1810	C	LEU	313A	25.293	46.367	40.031	1.00	41.33	A
	ATOM	1811	O	LEU	313A	24.400	46.891	39.364	1.00	40.94	A
	ATOM	1812	N	ARG	314A	25.759	46.901	41.187	1.00	40.36	A
50	ATOM	1813	CA	ARG	314A	25.257	48.211	41.663	1.00	38.33	A
	ATOM	1814	CB	ARG	314A	24.598	48.043	43.060	1.00	39.43	A
	ATOM	1815	CG	ARG	314A	23.470	47.022	42.901	1.00	35.94	A
	ATOM	1816	CD	ARG	314A	22.230	47.038	43.813	1.00	40.20	A
	ATOM	1817	NE	ARG	314A	21.288	48.186	43.829	1.00	44.23	A
55	ATOM	1818	CZ	ARG	314A	20.008	48.130	43.382	1.00	42.80	A
	ATOM	1819	NH1	ARG	314A	19.520	47.024	42.779	1.00	41.18	A
	ATOM	1820	NH2	ARG	314A	19.127	49.121	43.563	1.00	47.09	A
	ATOM	1821	C	ARG	314A	26.400	49.202	41.716	1.00	38.31	A
	ATOM	1822	O	ARG	314A	27.562	48.824	41.887	1.00	36.01	A

	ATOM	1823	N	TYR	315A	26.031	50.438	41.411	1.00	38.20	A
	ATOM	1824	CA	TYR	315A	26.991	51.541	41.396	1.00	36.54	A
	ATOM	1825	CB	TYR	315A	26.937	52.300	40.078	1.00	36.49	A
	ATOM	1826	CG	TYR	315A	27.412	51.500	38.897	1.00	36.35	A
5	ATOM	1827	CD1	TYR	315A	26.638	50.461	38.372	1.00	37.51	A
	ATOM	1828	CE1	TYR	315A	27.067	49.738	37.256	1.00	38.66	A
	ATOM	1829	CD2	TYR	315A	28.629	51.794	38.282	1.00	37.39	A
	ATOM	1830	CE2	TYR	315A	29.068	51.078	37.168	1.00	36.28	A
	ATOM	1831	CZ	TYR	315A	28.287	50.059	36.662	1.00	37.26	A
10	ATOM	1832	OH	TYR	315A	28.725	49.367	35.563	1.00	40.40	A
	ATOM	1833	C	TYR	315A	26.656	52.485	42.528	1.00	36.02	A
	ATOM	1834	O	TYR	315A	25.485	52.759	42.794	1.00	36.19	A
	ATOM	1835	N	TYR	316A	27.688	52.999	43.184	1.00	35.57	A
	ATOM	1836	CA	TYR	316A	27.488	53.885	44.317	1.00	34.18	A
15	ATOM	1837	CB	TYR	316A	28.004	53.197	45.583	1.00	35.06	A
	ATOM	1838	CG	TYR	316A	27.274	51.921	45.926	1.00	35.08	A
	ATOM	1839	CD1	TYR	316A	26.261	51.915	46.884	1.00	34.95	A
	ATOM	1840	CE1	TYR	316A	25.578	50.755	47.200	1.00	34.50	A
	ATOM	1841	CD2	TYR	316A	27.585	50.721	45.287	1.00	36.53	A
20	ATOM	1842	CE2	TYR	316A	26.899	49.543	45.596	1.00	35.41	A
	ATOM	1843	CZ	TYR	316A	25.899	49.574	46.555	1.00	37.02	A
	ATOM	1844	OH	TYR	316A	25.204	48.428	46.870	1.00	40.95	A
	ATOM	1845	C	TYR	316A	28.168	55.236	44.178	1.00	34.32	A
	ATOM	1846	O	TYR	316A	29.063	55.427	43.348	1.00	34.67	A
25	ATOM	1847	N	SER	317A	27.727	56.177	45.003	1.00	32.02	A
	ATOM	1848	CA	SER	317A	28.313	57.504	45.026	1.00	32.37	A
	ATOM	1849	CB	SER	317A	27.230	58.587	44.943	1.00	30.76	A
	ATOM	1850	OG	SER	317A	26.727	58.711	43.626	1.00	32.09	A
	ATOM	1851	C	SER	317A	29.082	57.638	46.334	1.00	33.02	A
30	ATOM	1852	O	SER	317A	28.519	57.434	47.413	1.00	34.34	A
	ATOM	1853	N	SER	318A	30.366	57.968	46.234	1.00	33.88	A
	ATOM	1854	CA	SER	318A	31.214	58.142	47.411	1.00	34.38	A
	ATOM	1855	CB	SER	318A	32.693	58.071	47.020	1.00	32.60	A
	ATOM	1856	OG	SER	318A	33.028	59.101	46.108	1.00	33.01	A
35	ATOM	1857	C	SER	318A	30.930	59.478	48.100	1.00	35.89	A
	ATOM	1858	O	SER	318A	31.176	59.625	49.295	1.00	36.70	A
	ATOM	1859	N	GLU	319A	30.421	60.450	47.348	1.00	36.23	A
	ATOM	1860	CA	GLU	319A	30.099	61.760	47.912	1.00	37.44	A
	ATOM	1861	CB	GLU	319A	31.363	62.623	48.042	1.00	39.51	A
40	ATOM	1862	CG	GLU	319A	31.112	64.069	48.510	1.00	45.19	A
	ATOM	1863	CD	GLU	319A	30.565	64.189	49.951	1.00	47.22	A
	ATOM	1864	OE1	GLU	319A	29.456	63.679	50.253	1.00	47.01	A
	ATOM	1865	OE2	GLU	319A	31.257	64.814	50.788	1.00	49.62	A
	ATOM	1866	C	GLU	319A	29.065	62.487	47.060	1.00	37.00	A
45	ATOM	1867	O	GLU	319A	28.910	62.200	45.869	1.00	36.83	A
	ATOM	1868	N	TYR	320A	28.351	63.415	47.692	1.00	34.32	A
	ATOM	1869	CA	TYR	320A	27.321	64.213	47.039	1.00	32.80	A
	ATOM	1870	CB	TYR	320A	26.014	63.421	46.877	1.00	32.30	A
	ATOM	1871	CG	TYR	320A	25.479	62.817	48.162	1.00	34.96	A
50	ATOM	1872	CD1	TYR	320A	25.906	61.559	48.598	1.00	31.24	A
	ATOM	1873	CE1	TYR	320A	25.417	61.005	49.764	1.00	31.55	A
	ATOM	1874	CD2	TYR	320A	24.544	63.504	48.944	1.00	32.05	A
	ATOM	1875	CE2	TYR	320A	24.051	62.955	50.118	1.00	31.21	A
	ATOM	1876	CZ	TYR	320A	24.489	61.703	50.521	1.00	32.25	A
55	ATOM	1877	OH	TYR	320A	23.981	61.140	51.668	1.00	33.25	A
	ATOM	1878	C	TYR	320A	27.067	65.461	47.881	1.00	31.66	A
	ATOM	1879	O	TYR	320A	27.124	65.415	49.106	1.00	29.23	A
	ATOM	1880	N	TYR	321A	26.764	66.568	47.215	1.00	31.45	A
	ATOM	1881	CA	TYR	321A	26.541	67.824	47.905	1.00	31.39	A

	ATOM	1882	CB	TYR	321A	27.895	68.355	48.402	1.00	33.28	A
	ATOM	1883	CG	TYR	321A	28.961	68.338	47.318	1.00	34.81	A
	ATOM	1884	CD1	TYR	321A	29.058	69.377	46.393	1.00	35.66	A
	ATOM	1885	CE1	TYR	321A	29.945	69.310	45.318	1.00	36.78	A
5	ATOM	1886	CD2	TYR	321A	29.795	67.226	47.144	1.00	36.50	A
	ATOM	1887	CE2	TYR	321A	30.686	67.148	46.072	1.00	35.27	A
	ATOM	1888	CZ	TYR	321A	30.753	68.193	45.160	1.00	38.74	A
	ATOM	1889	OH	TYR	321A	31.608	68.124	44.081	1.00	39.93	A
	ATOM	1890	C	TYR	321A	25.916	68.839	46.965	1.00	33.02	A
10	ATOM	1891	O	TYR	321A	25.864	68.631	45.749	1.00	33.46	A
	ATOM	1892	N	TYR	322A	25.437	69.939	47.536	1.00	32.30	A
	ATOM	1893	CA	TYR	322A	24.877	71.022	46.745	1.00	30.61	A
	ATOM	1894	CB	TYR	322A	23.828	71.812	47.540	1.00	28.96	A
	ATOM	1895	CG	TYR	322A	22.452	71.206	47.486	1.00	31.20	A
15	ATOM	1896	CD1	TYR	322A	21.795	70.819	48.653	1.00	32.44	A
	ATOM	1897	CE1	TYR	322A	20.538	70.212	48.605	1.00	31.94	A
	ATOM	1898	CD2	TYR	322A	21.816	70.975	46.260	1.00	30.41	A
	ATOM	1899	CE2	TYR	322A	20.562	70.364	46.201	1.00	30.21	A
	ATOM	1900	CZ	TYR	322A	19.931	69.987	47.376	1.00	32.48	A
20	ATOM	1901	OH	TYR	322A	18.699	69.377	47.335	1.00	32.97	A
	ATOM	1902	C	TYR	322A	26.054	71.927	46.430	1.00	30.68	A
	ATOM	1903	O	TYR	322A	26.921	72.117	47.279	1.00	31.16	A
	ATOM	1904	N	VAL	323A	26.104	72.453	45.208	1.00	31.53	A
	ATOM	1905	CA	VAL	323A	27.171	73.369	44.832	1.00	31.70	A
25	ATOM	1906	CB	VAL	323A	27.012	73.866	43.375	1.00	31.76	A
	ATOM	1907	CG1	VAL	323A	28.013	74.971	43.090	1.00	29.24	A
	ATOM	1908	CG2	VAL	323A	27.223	72.711	42.409	1.00	30.76	A
	ATOM	1909	C	VAL	323A	27.054	74.550	45.792	1.00	32.07	A
	ATOM	1910	O	VAL	323A	26.004	75.167	45.911	1.00	31.97	A
30	ATOM	1911	N	GLY	324A	28.135	74.853	46.491	1.00	32.96	A
	ATOM	1912	CA	GLY	324A	28.093	75.937	47.451	1.00	33.37	A
	ATOM	1913	C	GLY	324A	28.076	75.344	48.844	1.00	32.95	A
	ATOM	1914	O	GLY	324A	28.160	76.068	49.832	1.00	34.70	A
	ATOM	1915	N	GLY	325A	27.943	74.022	48.920	1.00	32.14	A
35	ATOM	1916	CA	GLY	325A	27.952	73.345	50.205	1.00	32.65	A
	ATOM	1917	C	GLY	325A	26.613	72.976	50.813	1.00	34.07	A
	ATOM	1918	O	GLY	325A	26.537	72.050	51.615	1.00	35.76	A
	ATOM	1919	N	PHE	326A	25.558	73.694	50.443	1.00	32.05	A
	ATOM	1920	CA	PHE	326A	24.230	73.428	50.981	1.00	31.75	A
40	ATOM	1921	CB	PHE	326A	24.162	73.856	52.457	1.00	30.88	A
	ATOM	1922	CG	PHE	326A	24.612	75.273	52.692	1.00	32.28	A
	ATOM	1923	CD1	PHE	326A	23.759	76.347	52.428	1.00	32.17	A
	ATOM	1924	CD2	PHE	326A	25.925	75.540	53.080	1.00	31.14	A
	ATOM	1925	CE1	PHE	326A	24.206	77.662	52.534	1.00	33.66	A
45	ATOM	1926	CE2	PHE	326A	26.387	76.851	53.191	1.00	32.27	A
	ATOM	1927	CZ	PHE	326A	25.528	77.916	52.915	1.00	35.18	A
	ATOM	1928	C	PHE	326A	23.236	74.228	50.156	1.00	32.65	A
	ATOM	1929	O	PHE	326A	23.620	75.173	49.474	1.00	31.19	A
	ATOM	1930	N	TYR	327A	21.964	73.844	50.218	1.00	32.42	A
50	ATOM	1931	CA	TYR	327A	20.928	74.538	49.471	1.00	31.51	A
	ATOM	1932	CB	TYR	327A	19.572	73.885	49.716	1.00	34.32	A
	ATOM	1933	CG	TYR	327A	18.456	74.491	48.902	1.00	34.97	A
	ATOM	1934	CD1	TYR	327A	18.649	74.821	47.560	1.00	36.83	A
	ATOM	1935	CE1	TYR	327A	17.617	75.340	46.791	1.00	35.25	A
55	ATOM	1936	CD2	TYR	327A	17.197	74.696	49.455	1.00	35.25	A
	ATOM	1937	CE2	TYR	327A	16.155	75.212	48.694	1.00	36.36	A
	ATOM	1938	CZ	TYR	327A	16.372	75.531	47.361	1.00	35.11	A
	ATOM	1939	OH	TYR	327A	15.347	76.036	46.602	1.00	34.04	A
	ATOM	1940	C	TYR	327A	20.871	76.008	49.859	1.00	31.95	A

	ATOM	1941	O	TYR	327A	20.578	76.362	51.006	1.00	29.67	A
	ATOM	1942	N	GLY	328A	21.159	76.860	48.884	1.00	31.08	A
	ATOM	1943	CA	GLY	328A	21.156	78.283	49.125	1.00	30.84	A
	ATOM	1944	C	GLY	328A	22.514	78.894	48.851	1.00	32.16	A
5	ATOM	1945	O	GLY	328A	22.630	80.110	48.730	1.00	32.19	A
	ATOM	1946	N	GLY	329A	23.542	78.058	48.736	1.00	31.82	A
	ATOM	1947	CA	GLY	329A	24.875	78.578	48.483	1.00	32.74	A
	ATOM	1948	C	GLY	329A	25.334	78.604	47.037	1.00	31.70	A
	ATOM	1949	O	GLY	329A	26.445	79.040	46.747	1.00	30.76	A
10	ATOM	1950	N	CYS	330A	24.478	78.163	46.125	1.00	32.75	A
	ATOM	1951	CA	CYS	330A	24.814	78.113	44.703	1.00	33.51	A
	ATOM	1952	CB	CYS	330A	23.752	77.274	43.976	1.00	34.94	A
	ATOM	1953	SG	CYS	330A	24.067	76.854	42.238	1.00	33.58	A
	ATOM	1954	C	CYS	330A	24.955	79.475	44.010	1.00	35.17	A
15	ATOM	1955	O	CYS	330A	24.321	80.452	44.396	1.00	34.12	A
	ATOM	1956	N	ASN	331A	25.825	79.532	43.003	1.00	36.70	A
	ATOM	1957	CA	ASN	331A	26.020	80.733	42.189	1.00	35.98	A
	ATOM	1958	CB	ASN	331A	26.771	81.838	42.952	1.00	35.64	A
	ATOM	1959	CG	ASN	331A	28.240	81.526	43.182	1.00	37.76	A
20	ATOM	1960	OD1	ASN	331A	29.008	81.317	42.240	1.00	38.28	A
	ATOM	1961	ND2	ASN	331A	28.644	81.518	44.448	1.00	38.14	A
	ATOM	1962	C	ASN	331A	26.762	80.331	40.918	1.00	36.65	A
	ATOM	1963	O	ASN	331A	27.415	79.288	40.885	1.00	36.77	A
	ATOM	1964	N	GLU	332A	26.646	81.145	39.874	1.00	37.40	A
25	ATOM	1965	CA	GLU	332A	27.290	80.868	38.588	1.00	37.73	A
	ATOM	1966	CB	GLU	332A	27.145	82.084	37.651	1.00	39.70	A
	ATOM	1967	CG	GLU	332A	28.185	82.109	36.520	1.00	42.08	A
	ATOM	1968	CD	GLU	332A	28.028	83.283	35.567	1.00	43.70	A
	ATOM	1969	OE1	GLU	332A	27.579	84.368	36.005	1.00	45.28	A
30	ATOM	1970	OE2	GLU	332A	28.376	83.124	34.373	1.00	44.40	A
	ATOM	1971	C	GLU	332A	28.768	80.443	38.636	1.00	36.61	A
	ATOM	1972	O	GLU	332A	29.155	79.449	38.015	1.00	36.38	A
	ATOM	1973	N	ALA	333A	29.590	81.201	39.355	1.00	35.01	A
	ATOM	1974	CA	ALA	333A	31.026	80.915	39.456	1.00	33.63	A
35	ATOM	1975	CB	ALA	333A	31.713	81.998	40.302	1.00	31.77	A
	ATOM	1976	C	ALA	333A	31.357	79.522	40.012	1.00	34.22	A
	ATOM	1977	O	ALA	333A	32.198	78.815	39.458	1.00	36.15	A
	ATOM	1978	N	LEU	334A	30.711	79.137	41.112	1.00	33.77	A
	ATOM	1979	CA	LEU	334A	30.941	77.828	41.709	1.00	32.60	A
40	ATOM	1980	CB	LEU	334A	30.233	77.719	43.062	1.00	32.34	A
	ATOM	1981	CG	LEU	334A	30.722	78.682	44.149	1.00	32.75	A
	ATOM	1982	CD1	LEU	334A	29.834	78.552	45.377	1.00	31.61	A
	ATOM	1983	CD2	LEU	334A	32.182	78.384	44.496	1.00	30.02	A
	ATOM	1984	C	LEU	334A	30.455	76.725	40.780	1.00	33.08	A
45	ATOM	1985	O	LEU	334A	31.024	75.641	40.757	1.00	33.88	A
	ATOM	1986	N	MET	335A	29.395	76.998	40.023	1.00	32.36	A
	ATOM	1987	CA	MET	335A	28.873	76.016	39.080	1.00	32.17	A
	ATOM	1988	CB	MET	335A	27.550	76.501	38.471	1.00	33.28	A
	ATOM	1989	CG	MET	335A	26.344	76.390	39.399	1.00	32.00	A
50	ATOM	1990	SD	MET	335A	24.882	77.287	38.777	1.00	33.11	A
	ATOM	1991	CE	MET	335A	24.357	76.191	37.445	1.00	29.76	A
	ATOM	1992	C	MET	335A	29.907	75.776	37.974	1.00	30.38	A
	ATOM	1993	O	MET	335A	30.190	74.628	37.620	1.00	29.99	A
	ATOM	1994	N	LYS	336A	30.471	76.860	37.440	1.00	29.70	A
55	ATOM	1995	CA	LYS	336A	31.487	76.763	36.394	1.00	32.70	A
	ATOM	1996	CB	LYS	336A	31.962	78.156	35.968	1.00	31.01	A
	ATOM	1997	CG	LYS	336A	31.040	78.873	35.006	1.00	31.76	A
	ATOM	1998	CD	LYS	336A	31.436	80.339	34.841	1.00	30.72	A
	ATOM	1999	CE	LYS	336A	32.758	80.500	34.122	1.00	30.72	A

	ATOM	2000	NZ	LYS	336A	33.199	81.924	34.113	1.00	30.23	A
	ATOM	2001	C	LYS	336A	32.689	75.956	36.890	1.00	34.90	A
	ATOM	2002	O	LYS	336A	33.244	75.137	36.154	1.00	35.75	A
	ATOM	2003	N	LEU	337A	33.089	76.196	38.138	1.00	34.39	A
5	ATOM	2004	CA	LEU	337A	34.222	75.489	38.726	1.00	34.73	A
	ATOM	2005	CB	LEU	337A	34.564	76.089	40.094	1.00	36.62	A
	ATOM	2006	CG	LEU	337A	35.753	75.534	40.883	1.00	39.73	A
	ATOM	2007	CD1	LEU	337A	37.022	75.596	40.034	1.00	38.38	A
	ATOM	2008	CD2	LEU	337A	35.927	76.354	42.170	1.00	39.38	A
10	ATOM	2009	C	LEU	337A	33.904	74.004	38.871	1.00	34.35	A
	ATOM	2010	O	LEU	337A	34.677	73.144	38.444	1.00	35.54	A
	ATOM	2011	N	GLU	338A	32.758	73.705	39.474	1.00	32.29	A
	ATOM	2012	CA	GLU	338A	32.342	72.322	39.659	1.00	32.37	A
	ATOM	2013	CB	GLU	338A	31.005	72.273	40.398	1.00	30.50	A
15	ATOM	2014	CG	GLU	338A	30.449	70.877	40.619	1.00	32.15	A
	ATOM	2015	CD	GLU	338A	31.322	70.028	41.525	1.00	33.83	A
	ATOM	2016	OE1	GLU	338A	31.976	70.598	42.422	1.00	36.26	A
	ATOM	2017	OE2	GLU	338A	31.337	68.789	41.354	1.00	35.56	A
	ATOM	2018	C	GLU	338A	32.215	71.615	38.310	1.00	31.66	A
20	ATOM	2019	O	GLU	338A	32.599	70.460	38.175	1.00	31.49	A
	ATOM	2020	N	LEU	339A	31.679	72.317	37.315	1.00	31.90	A
	ATOM	2021	CA	LEU	339A	31.510	71.736	35.992	1.00	32.78	A
	ATOM	2022	CB	LEU	339A	30.803	72.725	35.056	1.00	32.61	A
	ATOM	2023	CG	LEU	339A	30.492	72.190	33.655	1.00	34.38	A
25	ATOM	2024	CD1	LEU	339A	29.492	71.053	33.761	1.00	31.74	A
	ATOM	2025	CD2	LEU	339A	29.924	73.298	32.773	1.00	34.86	A
	ATOM	2026	C	LEU	339A	32.842	71.320	35.372	1.00	32.19	A
	ATOM	2027	O	LEU	339A	33.031	70.170	35.004	1.00	33.05	A
	ATOM	2028	N	VAL	340A	33.774	72.255	35.273	1.00	32.93	A
30	ATOM	2029	CA	VAL	340A	35.059	71.955	34.659	1.00	35.48	A
	ATOM	2030	CB	VAL	340A	35.857	73.259	34.406	1.00	37.63	A
	ATOM	2031	CG1	VAL	340A	37.156	72.942	33.699	1.00	39.05	A
	ATOM	2032	CG2	VAL	340A	35.032	74.216	33.555	1.00	35.15	A
	ATOM	2033	C	VAL	340A	35.915	70.969	35.449	1.00	36.51	A
35	ATOM	2034	O	VAL	340A	36.580	70.120	34.866	1.00	38.25	A
	ATOM	2035	N	LYS	341A	35.879	71.072	36.772	1.00	37.06	A
	ATOM	2036	CA	LYS	341A	36.652	70.203	37.658	1.00	36.80	A
	ATOM	2037	CB	LYS	341A	36.672	70.798	39.065	1.00	40.41	A
	ATOM	2038	CG	LYS	341A	38.004	71.302	39.561	1.00	44.82	A
40	ATOM	2039	CD	LYS	341A	37.842	71.892	40.972	1.00	48.70	A
	ATOM	2040	CE	LYS	341A	39.184	72.082	41.669	1.00	51.48	A
	ATOM	2041	NZ	LYS	341A	39.894	70.767	41.858	1.00	52.86	A
	ATOM	2042	C	LYS	341A	36.141	68.764	37.772	1.00	38.03	A
	ATOM	2043	O	LYS	341A	36.915	67.812	37.677	1.00	36.41	A
45	ATOM	2044	N	HIS	342A	34.839	68.599	37.984	1.00	37.39	A
	ATOM	2045	CA	HIS	342A	34.298	67.259	38.172	1.00	38.95	A
	ATOM	2046	CB	HIS	342A	33.670	67.163	39.568	1.00	39.83	A
	ATOM	2047	CG	HIS	342A	34.597	67.587	40.665	1.00	40.53	A
	ATOM	2048	CD2	HIS	342A	34.603	68.689	41.451	1.00	41.36	A
50	ATOM	2049	ND1	HIS	342A	35.731	66.875	40.997	1.00	42.40	A
	ATOM	2050	CE1	HIS	342A	36.397	67.522	41.936	1.00	41.54	A
	ATOM	2051	NE2	HIS	342A	35.734	68.628	42.229	1.00	42.53	A
	ATOM	2052	C	HIS	342A	33.320	66.736	37.134	1.00	38.85	A
	ATOM	2053	O	HIS	342A	32.945	65.566	37.189	1.00	38.88	A
55	ATOM	2054	N	GLY	343A	32.907	67.584	36.196	1.00	37.75	A
	ATOM	2055	CA	GLY	343A	31.985	67.136	35.166	1.00	36.68	A
	ATOM	2056	C	GLY	343A	30.551	67.632	35.277	1.00	36.64	A
	ATOM	2057	O	GLY	343A	30.230	68.451	36.146	1.00	37.42	A
	ATOM	2058	N	PRO	344A	29.662	67.157	34.386	1.00	34.78	A

	ATOM	2059	CD	PRO	344A	29.979	66.278	33.241	1.00	34.64	A
	ATOM	2060	CA	PRO	344A	28.248	67.536	34.366	1.00	32.82	A
	ATOM	2061	CB	PRO	344A	27.665	66.616	33.296	1.00	32.66	A
	ATOM	2062	CG	PRO	344A	28.803	66.511	32.318	1.00	34.67	A
5	ATOM	2063	C	PRO	344A	27.562	67.362	35.716	1.00	31.27	A
	ATOM	2064	O	PRO	344A	27.818	66.399	36.442	1.00	31.59	A
	ATOM	2065	N	MET	345A	26.681	68.301	36.038	1.00	30.45	A
	ATOM	2066	CA	MET	345A	25.949	68.273	37.296	1.00	32.32	A
	ATOM	2067	CB	MET	345A	26.476	69.354	38.233	1.00	30.74	A
10	ATOM	2068	CG	MET	345A	26.090	70.742	37.794	1.00	32.71	A
	ATOM	2069	SD	MET	345A	27.054	71.982	38.616	1.00	35.89	A
	ATOM	2070	CE	MET	345A	28.496	71.976	37.586	1.00	33.56	A
	ATOM	2071	C	MET	345A	24.449	68.493	37.099	1.00	33.20	A
	ATOM	2072	O	MET	345A	24.000	68.978	36.055	1.00	33.90	A
15	ATOM	2073	N	ALA	346A	23.686	68.147	38.130	1.00	33.18	A
	ATOM	2074	CA	ALA	346A	22.243	68.310	38.114	1.00	33.51	A
	ATOM	2075	CB	ALA	346A	21.597	67.306	39.070	1.00	32.10	A
	ATOM	2076	C	ALA	346A	21.840	69.733	38.502	1.00	34.12	A
	ATOM	2077	O	ALA	346A	22.453	70.361	39.370	1.00	34.73	A
20	ATOM	2078	N	VAL	347A	20.812	70.234	37.828	1.00	34.39	A
	ATOM	2079	CA	VAL	347A	20.259	71.553	38.092	1.00	32.93	A
	ATOM	2080	CB	VAL	347A	20.835	72.634	37.138	1.00	32.26	A
	ATOM	2081	CG1	VAL	347A	22.331	72.779	37.360	1.00	31.80	A
	ATOM	2082	CG2	VAL	347A	20.540	72.277	35.694	1.00	30.43	A
25	ATOM	2083	C	VAL	347A	18.762	71.440	37.860	1.00	33.63	A
	ATOM	2084	O	VAL	347A	18.311	70.559	37.130	1.00	34.41	A
	ATOM	2085	N	ALA	348A	17.988	72.308	38.498	1.00	32.97	A
	ATOM	2086	CA	ALA	348A	16.543	72.308	38.314	1.00	32.08	A
	ATOM	2087	CB	ALA	348A	15.844	71.755	39.554	1.00	32.24	A
30	ATOM	2088	C	ALA	348A	16.112	73.745	38.047	1.00	31.90	A
	ATOM	2089	O	ALA	348A	16.789	74.682	38.455	1.00	32.63	A
	ATOM	2090	N	PHE	349A	14.998	73.924	37.352	1.00	31.97	A
	ATOM	2091	CA	PHE	349A	14.517	75.266	37.048	1.00	32.73	A
	ATOM	2092	CB	PHE	349A	15.226	75.820	35.812	1.00	31.29	A
35	ATOM	2093	CG	PHE	349A	14.864	75.115	34.533	1.00	32.83	A
	ATOM	2094	CD1	PHE	349A	15.259	73.799	34.308	1.00	30.76	A
	ATOM	2095	CD2	PHE	349A	14.149	75.783	33.535	1.00	33.25	A
	ATOM	2096	CE1	PHE	349A	14.956	73.154	33.103	1.00	33.71	A
	ATOM	2097	CE2	PHE	349A	13.840	75.148	32.321	1.00	34.19	A
40	ATOM	2098	CZ	PHE	349A	14.247	73.829	32.105	1.00	34.21	A
	ATOM	2099	C	PHE	349A	13.020	75.232	36.798	1.00	33.85	A
	ATOM	2100	O	PHE	349A	12.411	74.165	36.827	1.00	35.04	A
	ATOM	2101	N	GLU	350A	12.428	76.396	36.549	1.00	34.78	A
	ATOM	2102	CA	GLU	350A	10.994	76.458	36.289	1.00	36.58	A
45	ATOM	2103	CB	GLU	350A	10.389	77.741	36.869	1.00	39.17	A
	ATOM	2104	CG	GLU	350A	8.907	77.595	37.217	1.00	43.00	A
	ATOM	2105	CD	GLU	350A	8.221	78.927	37.498	1.00	44.91	A
	ATOM	2106	OE1	GLU	350A	8.849	79.818	38.113	1.00	44.01	A
	ATOM	2107	OE2	GLU	350A	7.038	79.074	37.111	1.00	46.98	A
50	ATOM	2108	C	GLU	350A	10.697	76.403	34.793	1.00	35.36	A
	ATOM	2109	O	GLU	350A	11.107	77.283	34.044	1.00	31.99	A
	ATOM	2110	N	VAL	351A	9.995	75.357	34.363	1.00	37.41	A
	ATOM	2111	CA	VAL	351A	9.620	75.220	32.953	1.00	38.55	A
	ATOM	2112	CB	VAL	351A	9.351	73.745	32.566	1.00	37.18	A
55	ATOM	2113	CG1	VAL	351A	8.601	73.678	31.248	1.00	37.59	A
	ATOM	2114	CG2	VAL	351A	10.658	72.996	32.432	1.00	38.04	A
	ATOM	2115	C	VAL	351A	8.348	76.028	32.698	1.00	38.24	A
	ATOM	2116	O	VAL	351A	7.320	75.788	33.322	1.00	39.22	A
	ATOM	2117	N	HIS	352A	8.431	77.004	31.803	1.00	39.23	A

	ATOM	2118	CA	HIS	352A	7.271	77.816	31.465	1.00	41.67	A
	ATOM	2119	CB	HIS	352A	7.656	79.281	31.326	1.00	41.13	A
	ATOM	2120	CG	HIS	352A	8.040	79.920	32.619	1.00	42.89	A
	ATOM	2121	CD2	HIS	352A	9.239	80.338	33.087	1.00	41.03	A
5	ATOM	2122	ND1	HIS	352A	7.126	80.183	33.617	1.00	43.67	A
	ATOM	2123	CE1	HIS	352A	7.747	80.739	34.643	1.00	43.29	A
	ATOM	2124	NE2	HIS	352A	9.030	80.844	34.346	1.00	41.22	A
	ATOM	2125	C	HIS	352A	6.700	77.306	30.161	1.00	42.57	A
	ATOM	2126	O	HIS	352A	7.227	76.369	29.566	1.00	43.22	A
10	ATOM	2127	N	ASP	353A	5.622	77.914	29.706	1.00	43.27	A
	ATOM	2128	CA	ASP	353A	5.026	77.449	28.481	1.00	44.00	A
	ATOM	2129	CB	ASP	353A	3.657	78.070	28.300	1.00	48.81	A
	ATOM	2130	CG	ASP	353A	2.605	77.028	28.110	1.00	54.39	A
	ATOM	2131	OD1	ASP	353A	2.203	76.424	29.141	1.00	57.24	A
15	ATOM	2132	OD2	ASP	353A	2.214	76.790	26.934	1.00	55.38	A
	ATOM	2133	C	ASP	353A	5.876	77.697	27.247	1.00	42.66	A
	ATOM	2134	O	ASP	353A	6.001	76.820	26.392	1.00	42.01	A
	ATOM	2135	N	ASP	354A	6.454	78.888	27.147	1.00	42.23	A
	ATOM	2136	CA	ASP	354A	7.299	79.212	26.000	1.00	43.33	A
20	ATOM	2137	CB	ASP	354A	7.868	80.626	26.132	1.00	42.16	A
	ATOM	2138	CG	ASP	354A	8.587	80.857	27.459	1.00	43.35	A
	ATOM	2139	OD1	ASP	354A	8.844	79.873	28.191	1.00	39.68	A
	ATOM	2140	OD2	ASP	354A	8.900	82.033	27.759	1.00	41.72	A
	ATOM	2141	C	ASP	354A	8.453	78.220	25.843	1.00	44.05	A
25	ATOM	2142	O	ASP	354A	8.954	78.015	24.733	1.00	46.89	A
	ATOM	2143	N	PHE	355A	8.860	77.595	26.947	1.00	42.64	A
	ATOM	2144	CA	PHE	355A	9.971	76.642	26.926	1.00	41.15	A
	ATOM	2145	CB	PHE	355A	10.434	76.326	28.363	1.00	38.40	A
	ATOM	2146	CG	PHE	355A	11.702	75.520	28.430	1.00	33.95	A
30	ATOM	2147	CD1	PHE	355A	12.942	76.140	28.354	1.00	35.87	A
	ATOM	2148	CD2	PHE	355A	11.657	74.136	28.530	1.00	35.35	A
	ATOM	2149	CE1	PHE	355A	14.122	75.390	28.373	1.00	32.94	A
	ATOM	2150	CE2	PHE	355A	12.829	73.380	28.548	1.00	32.91	A
	ATOM	2151	CZ	PHE	355A	14.059	74.010	28.470	1.00	32.76	A
35	ATOM	2152	C	PHE	355A	9.600	75.347	26.216	1.00	40.52	A
	ATOM	2153	O	PHE	355A	10.434	74.720	25.572	1.00	39.70	A
	ATOM	2154	N	LEU	356A	8.345	74.943	26.336	1.00	42.40	A
	ATOM	2155	CA	LEU	356A	7.895	73.705	25.706	1.00	42.80	A
	ATOM	2156	CB	LEU	356A	6.429	73.465	26.056	1.00	42.98	A
40	ATOM	2157	CG	LEU	356A	6.158	73.435	27.557	1.00	43.01	A
	ATOM	2158	CD1	LEU	356A	4.698	73.087	27.791	1.00	41.96	A
	ATOM	2159	CD2	LEU	356A	7.067	72.407	28.221	1.00	43.23	A
	ATOM	2160	C	LEU	356A	8.079	73.674	24.185	1.00	42.09	A
	ATOM	2161	O	LEU	356A	8.267	72.612	23.601	1.00	42.02	A
45	ATOM	2162	N	HIS	357A	8.028	74.838	23.550	1.00	42.28	A
	ATOM	2163	CA	HIS	357A	8.181	74.916	22.099	1.00	44.19	A
	ATOM	2164	CB	HIS	357A	7.135	75.877	21.520	1.00	44.17	A
	ATOM	2165	CG	HIS	357A	5.728	75.480	21.834	1.00	45.71	A
	ATOM	2166	CD2	HIS	357A	4.865	75.931	22.776	1.00	45.84	A
50	ATOM	2167	ND1	HIS	357A	5.095	74.428	21.204	1.00	45.86	A
	ATOM	2168	CE1	HIS	357A	3.905	74.245	21.748	1.00	45.27	A
	ATOM	2169	NE2	HIS	357A	3.741	75.142	22.705	1.00	46.46	A
	ATOM	2170	C	HIS	357A	9.582	75.365	21.689	1.00	42.94	A
	ATOM	2171	O	HIS	357A	9.796	75.792	20.555	1.00	41.95	A
55	ATOM	2172	N	TYR	358A	10.531	75.270	22.616	1.00	41.10	A
	ATOM	2173	CA	TYR	358A	11.902	75.666	22.332	1.00	40.29	A
	ATOM	2174	CB	TYR	358A	12.781	75.431	23.554	1.00	38.69	A
	ATOM	2175	CG	TYR	358A	14.257	75.615	23.277	1.00	36.05	A
	ATOM	2176	CD1	TYR	358A	14.832	76.885	23.251	1.00	34.16	A

	ATOM	2177	CE1	TYR	358A	16.198	77.047	23.009	1.00	33.09	A
	ATOM	2178	CD2	TYR	358A	15.077	74.515	23.043	1.00	33.51	A
	ATOM	2179	CE2	TYR	358A	16.432	74.667	22.795	1.00	32.71	A
	ATOM	2180	CZ	TYR	358A	16.992	75.928	22.784	1.00	32.23	A
5	ATOM	2181	OH	TYR	358A	18.348	76.060	22.579	1.00	31.66	A
	ATOM	2182	C	TYR	358A	12.487	74.893	21.148	1.00	40.78	A
	ATOM	2183	O	TYR	358A	12.350	73.679	21.056	1.00	39.99	A
	ATOM	2184	N	HIS	359A	13.150	75.599	20.246	1.00	41.39	A
	ATOM	2185	CA	HIS	359A	13.757	74.939	19.098	1.00	42.70	A
10	ATOM	2186	CB	HIS	359A	13.080	75.403	17.804	1.00	45.88	A
	ATOM	2187	CG	HIS	359A	11.711	74.830	17.613	1.00	49.58	A
	ATOM	2188	CD2	HIS	359A	10.482	75.365	17.813	1.00	52.11	A
	ATOM	2189	ND1	HIS	359A	11.502	73.521	17.237	1.00	52.14	A
	ATOM	2190	CE1	HIS	359A	10.202	73.270	17.216	1.00	53.10	A
15	ATOM	2191	NE2	HIS	359A	9.560	74.372	17.563	1.00	53.27	A
	ATOM	2192	C	HIS	359A	15.253	75.183	19.023	1.00	40.81	A
	ATOM	2193	O	HIS	359A	16.027	74.249	18.815	1.00	41.41	A
	ATOM	2194	N	SER	360A	15.665	76.430	19.219	1.00	38.69	A
	ATOM	2195	CA	SER	360A	17.080	76.768	19.143	1.00	38.44	A
20	ATOM	2196	CB	SER	360A	17.533	76.807	17.677	1.00	38.76	A
	ATOM	2197	OG	SER	360A	16.953	77.916	17.011	1.00	37.56	A
	ATOM	2198	C	SER	360A	17.342	78.124	19.766	1.00	36.82	A
	ATOM	2199	O	SER	360A	16.409	78.867	20.064	1.00	36.19	A
	ATOM	2200	N	GLY	361A	18.620	78.446	19.944	1.00	36.23	A
25	ATOM	2201	CA	GLY	361A	18.983	79.729	20.518	1.00	35.84	A
	ATOM	2202	C	GLY	361A	19.136	79.700	22.025	1.00	37.09	A
	ATOM	2203	O	GLY	361A	19.040	78.645	22.663	1.00	36.29	A
	ATOM	2204	N	ILE	362A	19.383	80.872	22.595	1.00	36.68	A
	ATOM	2205	CA	ILE	362A	19.554	81.003	24.031	1.00	37.29	A
30	ATOM	2206	CB	ILE	362A	20.573	82.100	24.352	1.00	38.61	A
	ATOM	2207	CG2	ILE	362A	20.866	82.121	25.855	1.00	36.48	A
	ATOM	2208	CG1	ILE	362A	21.851	81.848	23.547	1.00	37.04	A
	ATOM	2209	CD	ILE	362A	22.798	83.009	23.550	1.00	40.13	A
	ATOM	2210	C	ILE	362A	18.218	81.368	24.656	1.00	38.07	A
35	ATOM	2211	O	ILE	362A	17.755	82.499	24.519	1.00	38.57	A
	ATOM	2212	N	TYR	363A	17.600	80.406	25.336	1.00	38.58	A
	ATOM	2213	CA	TYR	363A	16.309	80.627	25.986	1.00	38.64	A
	ATOM	2214	CB	TYR	363A	15.793	79.316	26.597	1.00	37.75	A
	ATOM	2215	CG	TYR	363A	14.514	79.452	27.408	1.00	38.84	A
40	ATOM	2216	CD1	TYR	363A	13.270	79.563	26.787	1.00	35.65	A
	ATOM	2217	CE1	TYR	363A	12.104	79.716	27.532	1.00	36.50	A
	ATOM	2218	CD2	TYR	363A	14.558	79.493	28.804	1.00	39.21	A
	ATOM	2219	CE2	TYR	363A	13.400	79.643	29.562	1.00	39.25	A
	ATOM	2220	CZ	TYR	363A	12.175	79.758	28.922	1.00	38.64	A
45	ATOM	2221	OH	TYR	363A	11.040	79.946	29.679	1.00	34.87	A
	ATOM	2222	C	TYR	363A	16.364	81.705	27.078	1.00	39.91	A
	ATOM	2223	O	TYR	363A	17.354	81.840	27.797	1.00	38.03	A
	ATOM	2224	N	HIS	364A	15.279	82.471	27.166	1.00	42.59	A
	ATOM	2225	CA	HIS	364A	15.090	83.533	28.152	1.00	44.31	A
50	ATOM	2226	CB	HIS	364A	15.689	84.862	27.687	1.00	46.90	A
	ATOM	2227	CG	HIS	364A	15.232	86.034	28.501	1.00	53.54	A
	ATOM	2228	CD2	HIS	364A	14.368	87.039	28.212	1.00	55.02	A
	ATOM	2229	ND1	HIS	364A	15.605	86.218	29.819	1.00	55.47	A
	ATOM	2230	CE1	HIS	364A	14.988	87.283	30.306	1.00	56.21	A
55	ATOM	2231	NE2	HIS	364A	14.231	87.799	29.351	1.00	56.01	A
	ATOM	2232	C	HIS	364A	13.576	83.680	28.246	1.00	44.39	A
	ATOM	2233	O	HIS	364A	12.915	83.936	27.239	1.00	44.84	A
	ATOM	2234	N	HIS	365A	13.020	83.523	29.441	1.00	43.42	A
	ATOM	2235	CA	HIS	365A	11.574	83.620	29.598	1.00	42.69	A

	ATOM	2236	CB	HIS	365A	11.165	83.149	30.989	1.00	39.94	A
	ATOM	2237	CG	HIS	365A	9.686	83.126	31.197	1.00	41.23	A
	ATOM	2238	CD2	HIS	365A	8.902	83.761	32.099	1.00	40.47	A
	ATOM	2239	ND1	HIS	365A	8.836	82.386	30.403	1.00	39.26	A
5	ATOM	2240	CE1	HIS	365A	7.593	82.565	30.807	1.00	40.19	A
	ATOM	2241	NE2	HIS	365A	7.605	83.395	31.836	1.00	41.84	A
	ATOM	2242	C	HIS	365A	11.023	85.020	29.342	1.00	40.88	A
	ATOM	2243	O	HIS	365A	11.422	85.977	29.999	1.00	41.60	A
	ATOM	2244	N	PRO	371A	16.047	86.538	58.294	1.00	51.20	A
10	ATOM	2245	CD	PRO	371A	14.738	87.121	58.649	1.00	53.19	A
	ATOM	2246	CA	PRO	371A	15.965	85.074	58.221	1.00	51.16	A
	ATOM	2247	CB	PRO	371A	14.585	84.773	58.808	1.00	51.20	A
	ATOM	2248	CG	PRO	371A	13.782	85.969	58.377	1.00	52.17	A
	ATOM	2249	C	PRO	371A	16.139	84.525	56.799	1.00	50.71	A
15	ATOM	2250	O	PRO	371A	15.305	84.744	55.912	1.00	49.90	A
	ATOM	2251	N	PHE	372A	17.249	83.821	56.608	1.00	48.27	A
	ATOM	2252	CA	PHE	372A	17.614	83.203	55.347	1.00	46.41	A
	ATOM	2253	CB	PHE	372A	18.895	82.383	55.578	1.00	46.35	A
	ATOM	2254	CG	PHE	372A	19.512	81.833	54.331	1.00	46.01	A
20	ATOM	2255	CD1	PHE	372A	19.867	82.674	53.282	1.00	46.01	A
	ATOM	2256	CD2	PHE	372A	19.749	80.463	54.207	1.00	46.91	A
	ATOM	2257	CE1	PHE	372A	20.450	82.160	52.123	1.00	45.87	A
	ATOM	2258	CE2	PHE	372A	20.332	79.937	53.051	1.00	44.89	A
	ATOM	2259	CZ	PHE	372A	20.682	80.788	52.008	1.00	45.28	A
25	ATOM	2260	C	PHE	372A	16.466	82.315	54.832	1.00	45.41	A
	ATOM	2261	O	PHE	372A	15.776	81.660	55.611	1.00	44.79	A
	ATOM	2262	N	ASN	373A	16.254	82.325	53.518	1.00	44.27	A
	ATOM	2263	CA	ASN	373A	15.216	81.521	52.871	1.00	43.16	A
	ATOM	2264	CB	ASN	373A	13.844	82.179	53.008	1.00	42.56	A
30	ATOM	2265	CG	ASN	373A	12.718	81.270	52.533	1.00	45.24	A
	ATOM	2266	OD1	ASN	373A	12.930	80.388	51.696	1.00	43.59	A
	ATOM	2267	ND2	ASN	373A	11.516	81.486	53.058	1.00	45.60	A
	ATOM	2268	C	ASN	373A	15.595	81.443	51.393	1.00	41.57	A
	ATOM	2269	O	ASN	373A	15.190	82.283	50.591	1.00	40.99	A
35	ATOM	2270	N	PRO	374A	16.367	80.414	51.015	1.00	39.26	A
	ATOM	2271	CD	PRO	374A	16.816	79.299	51.866	1.00	38.14	A
	ATOM	2272	CA	PRO	374A	16.824	80.221	49.641	1.00	38.21	A
	ATOM	2273	CB	PRO	374A	17.994	79.267	49.823	1.00	38.13	A
	ATOM	2274	CG	PRO	374A	17.458	78.350	50.860	1.00	37.83	A
40	ATOM	2275	C	PRO	374A	15.814	79.675	48.643	1.00	37.32	A
	ATOM	2276	O	PRO	374A	16.150	79.503	47.478	1.00	37.66	A
	ATOM	2277	N	PHE	375A	14.588	79.407	49.077	1.00	35.76	A
	ATOM	2278	CA	PHE	375A	13.604	78.837	48.167	1.00	34.69	A
	ATOM	2279	CB	PHE	375A	12.238	78.698	48.844	1.00	32.58	A
45	ATOM	2280	CG	PHE	375A	11.207	78.048	47.962	1.00	32.34	A
	ATOM	2281	CD1	PHE	375A	11.222	76.675	47.752	1.00	29.70	A
	ATOM	2282	CD2	PHE	375A	10.274	78.818	47.271	1.00	35.37	A
	ATOM	2283	CE1	PHE	375A	10.330	76.077	46.864	1.00	33.69	A
	ATOM	2284	CE2	PHE	375A	9.377	78.230	46.377	1.00	34.52	A
50	ATOM	2285	CZ	PHE	375A	9.407	76.858	46.174	1.00	33.16	A
	ATOM	2286	C	PHE	375A	13.409	79.556	46.829	1.00	34.40	A
	ATOM	2287	O	PHE	375A	13.285	80.779	46.765	1.00	32.75	A
	ATOM	2288	N	GLU	376A	13.383	78.764	45.765	1.00	34.78	A
	ATOM	2289	CA	GLU	376A	13.163	79.250	44.410	1.00	36.20	A
55	ATOM	2290	CB	GLU	376A	14.478	79.591	43.704	1.00	37.38	A
	ATOM	2291	CG	GLU	376A	15.083	80.936	44.076	1.00	39.75	A
	ATOM	2292	CD	GLU	376A	16.344	81.241	43.284	1.00	42.59	A
	ATOM	2293	OE1	GLU	376A	16.298	81.158	42.036	1.00	44.21	A
	ATOM	2294	OE2	GLU	376A	17.384	81.562	43.906	1.00	44.97	A

	ATOM	2295	C	GLU	376A	12.477	78.115	43.682	1.00	37.49	A
	ATOM	2296	O	GLU	376A	13.066	77.055	43.483	1.00	38.70	A
	ATOM	2297	N	LEU	377A	11.228	78.346	43.295	1.00	38.78	A
	ATOM	2298	CA	LEU	377A	10.406	77.356	42.602	1.00	38.64	A
5	ATOM	2299	CB	LEU	377A	9.053	77.989	42.241	1.00	39.56	A
	ATOM	2300	CG	LEU	377A	8.027	77.194	41.416	1.00	43.61	A
	ATOM	2301	CD1	LEU	377A	7.295	76.211	42.301	1.00	42.89	A
	ATOM	2302	CD2	LEU	377A	7.022	78.151	40.791	1.00	43.68	A
	ATOM	2303	C	LEU	377A	11.029	76.748	41.341	1.00	37.07	A
10	ATOM	2304	O	LEU	377A	11.514	77.459	40.468	1.00	37.43	A
	ATOM	2305	N	THR	378A	11.001	75.424	41.257	1.00	36.15	A
	ATOM	2306	CA	THR	378A	11.501	74.706	40.089	1.00	37.08	A
	ATOM	2307	CB	THR	378A	12.865	74.026	40.349	1.00	36.22	A
	ATOM	2308	OG1	THR	378A	12.732	73.105	41.435	1.00	40.81	A
15	ATOM	2309	CG2	THR	378A	13.929	75.051	40.690	1.00	35.33	A
	ATOM	2310	C	THR	378A	10.467	73.617	39.824	1.00	36.36	A
	ATOM	2311	O	THR	378A	9.639	73.335	40.689	1.00	35.95	A
	ATOM	2312	N	ASN	379A	10.493	73.027	38.633	1.00	34.60	A
	ATOM	2313	CA	ASN	379A	9.559	71.957	38.307	1.00	34.89	A
20	ATOM	2314	CB	ASN	379A	8.217	72.502	37.768	1.00	34.18	A
	ATOM	2315	CG	ASN	379A	8.368	73.316	36.487	1.00	37.07	A
	ATOM	2316	OD1	ASN	379A	9.153	72.980	35.596	1.00	37.49	A
	ATOM	2317	ND2	ASN	379A	7.594	74.388	36.384	1.00	38.66	A
	ATOM	2318	C	ASN	379A	10.152	70.985	37.305	1.00	35.66	A
25	ATOM	2319	O	ASN	379A	9.436	70.175	36.723	1.00	38.17	A
	ATOM	2320	N	HIS	380A	11.462	71.055	37.103	1.00	36.29	A
	ATOM	2321	CA	HIS	380A	12.120	70.156	36.161	1.00	35.90	A
	ATOM	2322	CB	HIS	380A	11.951	70.691	34.733	1.00	35.84	A
	ATOM	2323	CG	HIS	380A	12.345	69.719	33.667	1.00	33.97	A
30	ATOM	2324	CD2	HIS	380A	13.108	69.871	32.560	1.00	37.47	A
	ATOM	2325	ND1	HIS	380A	11.913	68.411	33.656	1.00	36.68	A
	ATOM	2326	CE1	HIS	380A	12.394	67.798	32.590	1.00	37.18	A
	ATOM	2327	NE2	HIS	380A	13.122	68.662	31.907	1.00	36.47	A
	ATOM	2328	C	HIS	380A	13.602	69.985	36.496	1.00	35.82	A
35	ATOM	2329	O	HIS	380A	14.273	70.939	36.892	1.00	37.75	A
	ATOM	2330	N	ALA	381A	14.106	68.764	36.341	1.00	35.04	A
	ATOM	2331	CA	ALA	381A	15.503	68.471	36.623	1.00	34.17	A
	ATOM	2332	CB	ALA	381A	15.598	67.356	37.658	1.00	33.51	A
	ATOM	2333	C	ALA	381A	16.243	68.075	35.343	1.00	33.72	A
40	ATOM	2334	O	ALA	381A	15.801	67.195	34.608	1.00	35.08	A
	ATOM	2335	N	VAL	382A	17.371	68.732	35.087	1.00	33.30	A
	ATOM	2336	CA	VAL	382A	18.176	68.470	33.901	1.00	34.02	A
	ATOM	2337	CB	VAL	382A	17.909	69.539	32.829	1.00	33.11	A
	ATOM	2338	CG1	VAL	382A	16.496	69.372	32.285	1.00	33.78	A
45	ATOM	2339	CG2	VAL	382A	18.073	70.931	33.432	1.00	31.36	A
	ATOM	2340	C	VAL	382A	19.674	68.430	34.211	1.00	35.93	A
	ATOM	2341	O	VAL	382A	20.092	68.709	35.334	1.00	35.98	A
	ATOM	2342	N	LEU	383A	20.479	68.100	33.204	1.00	36.17	A
	ATOM	2343	CA	LEU	383A	21.919	67.996	33.374	1.00	34.99	A
50	ATOM	2344	CB	LEU	383A	22.399	66.660	32.806	1.00	35.30	A
	ATOM	2345	CG	LEU	383A	23.844	66.228	33.087	1.00	34.59	A
	ATOM	2346	CD1	LEU	383A	24.036	65.941	34.574	1.00	31.88	A
	ATOM	2347	CD2	LEU	383A	24.154	64.982	32.270	1.00	33.70	A
	ATOM	2348	C	LEU	383A	22.727	69.127	32.742	1.00	37.15	A
55	ATOM	2349	O	LEU	383A	22.696	69.318	31.528	1.00	37.18	A
	ATOM	2350	N	LEU	384A	23.453	69.873	33.579	1.00	37.75	A
	ATOM	2351	CA	LEU	384A	24.306	70.964	33.111	1.00	37.23	A
	ATOM	2352	CB	LEU	384A	24.831	71.784	34.289	1.00	36.86	A
	ATOM	2353	CG	LEU	384A	24.985	73.295	34.120	1.00	36.02	A

	ATOM	2354	CD1	LEU	384A	25.946	73.798	35.184	1.00	34.11	A
	ATOM	2355	CD2	LEU	384A	25.500	73.638	32.736	1.00	35.96	A
	ATOM	2356	C	LEU	384A	25.468	70.246	32.436	1.00	37.52	A
	ATOM	2357	O	LEU	384A	26.044	69.327	33.017	1.00	39.15	A
5	ATOM	2358	N	VAL	385A	25.811	70.660	31.222	1.00	35.20	A
	ATOM	2359	CA	VAL	385A	26.873	70.010	30.466	1.00	33.58	A
	ATOM	2360	CB	VAL	385A	26.255	69.282	29.230	1.00	34.43	A
	ATOM	2361	CG1	VAL	385A	27.283	69.075	28.151	1.00	37.82	A
	ATOM	2362	CG2	VAL	385A	25.687	67.944	29.661	1.00	31.81	A
10	ATOM	2363	C	VAL	385A	28.006	70.943	30.021	1.00	33.08	A
	ATOM	2364	O	VAL	385A	29.123	70.491	29.788	1.00	34.25	A
	ATOM	2365	N	GLY	386A	27.730	72.237	29.912	1.00	32.38	A
	ATOM	2366	CA	GLY	386A	28.763	73.164	29.484	1.00	32.74	A
	ATOM	2367	C	GLY	386A	28.320	74.611	29.482	1.00	34.13	A
15	ATOM	2368	O	GLY	386A	27.241	74.939	29.977	1.00	35.44	A
	ATOM	2369	N	TYR	387A	29.155	75.487	28.934	1.00	34.50	A
	ATOM	2370	CA	TYR	387A	28.822	76.907	28.866	1.00	37.00	A
	ATOM	2371	CB	TYR	387A	29.047	77.576	30.225	1.00	34.79	A
	ATOM	2372	CG	TYR	387A	30.485	77.555	30.710	1.00	38.96	A
20	ATOM	2373	CD1	TYR	387A	31.425	78.475	30.228	1.00	39.29	A
	ATOM	2374	CE1	TYR	387A	32.737	78.475	30.695	1.00	39.01	A
	ATOM	2375	CD2	TYR	387A	30.905	76.628	31.671	1.00	37.50	A
	ATOM	2376	CE2	TYR	387A	32.215	76.618	32.140	1.00	38.27	A
	ATOM	2377	CZ	TYR	387A	33.124	77.540	31.649	1.00	40.42	A
25	ATOM	2378	OH	TYR	387A	34.424	77.510	32.092	1.00	42.07	A
	ATOM	2379	C	TYR	387A	29.625	77.628	27.791	1.00	38.16	A
	ATOM	2380	O	TYR	387A	30.670	77.148	27.343	1.00	40.01	A
	ATOM	2381	N	GLY	388A	29.124	78.786	27.377	1.00	39.62	A
	ATOM	2382	CA	GLY	388A	29.799	79.559	26.356	1.00	39.94	A
30	ATOM	2383	C	GLY	388A	29.271	80.975	26.316	1.00	42.99	A
	ATOM	2384	O	GLY	388A	28.688	81.465	27.286	1.00	41.97	A
	ATOM	2385	N	LYS	389A	29.477	81.636	25.187	1.00	46.05	A
	ATOM	2386	CA	LYS	389A	29.030	83.010	25.002	1.00	48.44	A
	ATOM	2387	CB	LYS	389A	30.132	83.980	25.449	1.00	48.57	A
35	ATOM	2388	CG	LYS	389A	29.863	85.438	25.115	1.00	50.12	A
	ATOM	2389	CD	LYS	389A	31.009	86.339	25.574	1.00	51.35	A
	ATOM	2390	CE	LYS	389A	31.077	86.434	27.110	1.00	52.41	A
	ATOM	2391	NZ	LYS	389A	32.062	87.458	27.587	1.00	51.63	A
	ATOM	2392	C	LYS	389A	28.733	83.203	23.520	1.00	50.08	A
40	ATOM	2393	O	LYS	389A	29.607	82.960	22.683	1.00	50.05	A
	ATOM	2394	N	ASP	390A	27.511	83.620	23.186	1.00	52.67	A
	ATOM	2395	CA	ASP	390A	27.178	83.826	21.779	1.00	57.00	A
	ATOM	2396	CB	ASP	390A	25.752	84.342	21.601	1.00	59.32	A
	ATOM	2397	CG	ASP	390A	25.304	84.318	20.133	1.00	62.88	A
45	ATOM	2398	OD1	ASP	390A	24.106	84.022	19.879	1.00	62.92	A
	ATOM	2399	OD2	ASP	390A	26.151	84.600	19.241	1.00	62.85	A
	ATOM	2400	C	ASP	390A	28.172	84.836	21.220	1.00	58.35	A
	ATOM	2401	O	ASP	390A	28.363	85.916	21.791	1.00	58.86	A
	ATOM	2402	N	PRO	391A	28.825	84.493	20.100	1.00	59.35	A
50	ATOM	2403	CD	PRO	391A	28.665	83.229	19.356	1.00	59.43	A
	ATOM	2404	CA	PRO	391A	29.819	85.361	19.458	1.00	61.35	A
	ATOM	2405	CB	PRO	391A	30.491	84.423	18.457	1.00	60.57	A
	ATOM	2406	CG	PRO	391A	29.343	83.534	18.031	1.00	60.17	A
	ATOM	2407	C	PRO	391A	29.293	86.646	18.807	1.00	62.66	A
55	ATOM	2408	O	PRO	391A	30.083	87.548	18.481	1.00	63.66	A
	ATOM	2409	N	VAL	392A	27.978	86.752	18.625	1.00	62.85	A
	ATOM	2410	CA	VAL	392A	27.431	87.954	18.008	1.00	63.40	A
	ATOM	2411	CB	VAL	392A	26.340	87.609	16.973	1.00	65.21	A
	ATOM	2412	CG1	VAL	392A	25.964	88.861	16.190	1.00	66.11	A

	ATOM	2413	CG2	VAL	392A	26.842	86.519	16.020	1.00	64.46	A
	ATOM	2414	C	VAL	392A	26.848	88.876	19.067	1.00	63.33	A
	ATOM	2415	O	VAL	392A	27.258	90.031	19.204	1.00	65.13	A
	ATOM	2416	N	THR	393A	25.884	88.379	19.825	1.00	62.90	A
5	ATOM	2417	CA	THR	393A	25.293	89.192	20.880	1.00	62.30	A
	ATOM	2418	CB	THR	393A	24.006	88.577	21.369	1.00	63.21	A
	ATOM	2419	OG1	THR	393A	24.319	87.372	22.085	1.00	64.38	A
	ATOM	2420	CG2	THR	393A	23.096	88.249	20.174	1.00	63.53	A
	ATOM	2421	C	THR	393A	26.238	89.286	22.081	1.00	61.17	A
10	ATOM	2422	O	THR	393A	26.305	90.321	22.742	1.00	62.24	A
	ATOM	2423	N	GLY	394A	26.962	88.207	22.369	1.00	59.39	A
	ATOM	2424	CA	GLY	394A	27.873	88.215	23.506	1.00	56.42	A
	ATOM	2425	C	GLY	394A	27.169	87.717	24.759	1.00	55.12	A
	ATOM	2426	O	GLY	394A	27.646	87.913	25.883	1.00	55.56	A
15	ATOM	2427	N	LEU	395A	26.029	87.059	24.545	1.00	52.18	A
	ATOM	2428	CA	LEU	395A	25.193	86.507	25.604	1.00	48.93	A
	ATOM	2429	CB	LEU	395A	23.795	86.244	25.047	1.00	51.90	A
	ATOM	2430	CG	LEU	395A	22.642	87.096	25.576	1.00	55.53	A
	ATOM	2431	CD1	LEU	395A	21.320	86.616	24.954	1.00	54.99	A
20	ATOM	2432	CD2	LEU	395A	22.599	86.998	27.114	1.00	56.10	A
	ATOM	2433	C	LEU	395A	25.698	85.209	26.252	1.00	45.88	A
	ATOM	2434	O	LEU	395A	25.705	84.153	25.617	1.00	43.86	A
	ATOM	2435	N	ASP	396A	26.091	85.280	27.521	1.00	41.65	A
	ATOM	2436	CA	ASP	396A	26.544	84.091	28.236	1.00	40.06	A
25	ATOM	2437	CB	ASP	396A	27.036	84.475	29.636	1.00	39.93	A
	ATOM	2438	CG	ASP	396A	28.325	85.264	29.602	1.00	41.39	A
	ATOM	2439	OD1	ASP	396A	28.806	85.555	28.483	1.00	43.90	A
	ATOM	2440	OD2	ASP	396A	28.862	85.591	30.685	1.00	39.54	A
	ATOM	2441	C	ASP	396A	25.395	83.078	28.360	1.00	38.18	A
30	ATOM	2442	O	ASP	396A	24.251	83.448	28.643	1.00	38.26	A
	ATOM	2443	N	TYR	397A	25.693	81.802	28.145	1.00	36.37	A
	ATOM	2444	CA	TYR	397A	24.665	80.767	28.245	1.00	35.60	A
	ATOM	2445	CB	TYR	397A	24.093	80.433	26.863	1.00	35.29	A
	ATOM	2446	CG	TYR	397A	25.122	79.947	25.865	1.00	37.54	A
35	ATOM	2447	CD1	TYR	397A	25.714	80.828	24.959	1.00	39.42	A
	ATOM	2448	CE1	TYR	397A	26.681	80.397	24.058	1.00	40.06	A
	ATOM	2449	CD2	TYR	397A	25.525	78.613	25.843	1.00	39.16	A
	ATOM	2450	CE2	TYR	397A	26.497	78.167	24.945	1.00	42.00	A
	ATOM	2451	CZ	TYR	397A	27.070	79.069	24.056	1.00	42.61	A
40	ATOM	2452	OH	TYR	397A	28.043	78.646	23.182	1.00	43.60	A
	ATOM	2453	C	TYR	397A	25.178	79.482	28.880	1.00	35.33	A
	ATOM	2454	O	TYR	397A	26.378	79.314	29.082	1.00	35.61	A
	ATOM	2455	N	TRP	398A	24.249	78.587	29.202	1.00	33.78	A
	ATOM	2456	CA	TRP	398A	24.583	77.287	29.771	1.00	33.69	A
45	ATOM	2457	CB	TRP	398A	23.771	76.979	31.043	1.00	32.40	A
	ATOM	2458	CG	TRP	398A	24.094	77.785	32.279	1.00	33.79	A
	ATOM	2459	CD2	TRP	398A	25.287	77.713	33.079	1.00	32.93	A
	ATOM	2460	CE2	TRP	398A	25.118	78.608	34.160	1.00	34.17	A
	ATOM	2461	CE3	TRP	398A	26.481	76.980	32.986	1.00	33.92	A
50	ATOM	2462	CD1	TRP	398A	23.281	78.694	32.893	1.00	33.56	A
	ATOM	2463	NE1	TRP	398A	23.887	79.191	34.020	1.00	34.54	A
	ATOM	2464	CZ2	TRP	398A	26.098	78.792	35.146	1.00	35.04	A
	ATOM	2465	CZ3	TRP	398A	27.460	77.163	33.968	1.00	32.81	A
	ATOM	2466	CH2	TRP	398A	27.260	78.063	35.033	1.00	34.74	A
55	ATOM	2467	C	TRP	398A	24.164	76.290	28.701	1.00	34.71	A
	ATOM	2468	O	TRP	398A	23.268	76.579	27.910	1.00	34.73	A
	ATOM	2469	N	ILE	399A	24.815	75.131	28.668	1.00	35.69	A
	ATOM	2470	CA	ILE	399A	24.463	74.079	27.722	1.00	36.37	A
	ATOM	2471	CB	ILE	399A	25.700	73.544	26.982	1.00	36.84	A

	ATOM	2472	CG2	ILE	399A	25.283	72.474	25.977	1.00	35.99	A
	ATOM	2473	CG1	ILE	399A	26.416	74.701	26.282	1.00	35.72	A
	ATOM	2474	CD	ILE	399A	27.714	74.307	25.612	1.00	34.98	A
	ATOM	2475	C	ILE	399A	23.870	72.990	28.609	1.00	37.39	A
5	ATOM	2476	O	ILE	399A	24.570	72.413	29.443	1.00	36.68	A
	ATOM	2477	N	VAL	400A	22.576	72.725	28.436	1.00	37.66	A
	ATOM	2478	CA	VAL	400A	21.876	71.751	29.259	1.00	36.38	A
	ATOM	2479	CB	VAL	400A	20.758	72.454	30.074	1.00	35.76	A
	ATOM	2480	CG1	VAL	400A	20.214	71.523	31.137	1.00	33.36	A
10	ATOM	2481	CG2	VAL	400A	21.294	73.726	30.701	1.00	31.55	A
	ATOM	2482	C	VAL	400A	21.271	70.576	28.490	1.00	38.40	A
	ATOM	2483	O	VAL	400A	20.779	70.729	27.367	1.00	38.34	A
	ATOM	2484	N	LYS	401A	21.309	69.404	29.125	1.00	39.07	A
	ATOM	2485	CA	LYS	401A	20.786	68.167	28.553	1.00	38.53	A
15	ATOM	2486	CB	LYS	401A	21.733	67.005	28.879	1.00	36.94	A
	ATOM	2487	CG	LYS	401A	21.333	65.672	28.279	1.00	38.13	A
	ATOM	2488	CD	LYS	401A	22.251	64.551	28.754	1.00	35.72	A
	ATOM	2489	CE	LYS	401A	21.808	63.214	28.200	1.00	35.53	A
	ATOM	2490	NZ	LYS	401A	22.718	62.103	28.596	1.00	34.61	A
20	ATOM	2491	C	LYS	401A	19.389	67.858	29.089	1.00	38.85	A
	ATOM	2492	O	LYS	401A	19.215	67.589	30.286	1.00	38.30	A
	ATOM	2493	N	ASN	402A	18.397	67.900	28.198	1.00	38.02	A
	ATOM	2494	CA	ASN	402A	17.020	67.616	28.583	1.00	37.30	A
	ATOM	2495	CB	ASN	402A	16.035	68.376	27.685	1.00	36.54	A
25	ATOM	2496	CG	ASN	402A	14.755	68.787	28.422	1.00	36.91	A
	ATOM	2497	OD1	ASN	402A	14.379	68.186	29.428	1.00	37.33	A
	ATOM	2498	ND2	ASN	402A	14.078	69.809	27.907	1.00	34.90	A
	ATOM	2499	C	ASN	402A	16.762	66.114	28.469	1.00	37.54	A
	ATOM	2500	O	ASN	402A	17.619	65.357	28.008	1.00	37.86	A
30	ATOM	2501	N	SER	403A	15.574	65.693	28.891	1.00	38.10	A
	ATOM	2502	CA	SER	403A	15.181	64.289	28.847	1.00	38.42	A
	ATOM	2503	CB	SER	403A	15.104	63.725	30.273	1.00	36.80	A
	ATOM	2504	OG	SER	403A	14.284	64.525	31.105	1.00	32.67	A
	ATOM	2505	C	SER	403A	13.837	64.096	28.126	1.00	38.77	A
35	ATOM	2506	O	SER	403A	12.956	63.368	28.595	1.00	39.01	A
	ATOM	2507	N	TRP	404A	13.689	64.751	26.980	1.00	39.84	A
	ATOM	2508	CA	TRP	404A	12.461	64.653	26.195	1.00	40.56	A
	ATOM	2509	CB	TRP	404A	11.735	66.004	26.147	1.00	38.71	A
	ATOM	2510	CG	TRP	404A	11.382	66.578	27.484	1.00	35.36	A
40	ATOM	2511	CD2	TRP	404A	11.065	67.943	27.766	1.00	35.42	A
	ATOM	2512	CE2	TRP	404A	10.761	68.026	29.147	1.00	35.00	A
	ATOM	2513	CE3	TRP	404A	11.005	69.110	26.985	1.00	34.80	A
	ATOM	2514	CD1	TRP	404A	11.260	65.902	28.668	1.00	35.70	A
	ATOM	2515	NE1	TRP	404A	10.888	66.766	29.671	1.00	36.18	A
45	ATOM	2516	CZ2	TRP	404A	10.403	69.230	29.768	1.00	33.90	A
	ATOM	2517	CZ3	TRP	404A	10.648	70.309	27.600	1.00	33.91	A
	ATOM	2518	CH2	TRP	404A	10.353	70.358	28.982	1.00	34.18	A
	ATOM	2519	C	TRP	404A	12.764	64.208	24.771	1.00	41.05	A
	ATOM	2520	O	TRP	404A	12.159	64.704	23.821	1.00	44.10	A
50	ATOM	2521	N	GLY	405A	13.703	63.280	24.627	1.00	41.16	A
	ATOM	2522	CA	GLY	405A	14.069	62.796	23.311	1.00	39.79	A
	ATOM	2523	C	GLY	405A	15.058	63.699	22.595	1.00	41.33	A
	ATOM	2524	O	GLY	405A	15.131	64.901	22.845	1.00	38.14	A
	ATOM	2525	N	SER	406A	15.828	63.105	21.693	1.00	43.65	A
55	ATOM	2526	CA	SER	406A	16.818	63.838	20.917	1.00	46.77	A
	ATOM	2527	CB	SER	406A	17.823	62.861	20.308	1.00	47.34	A
	ATOM	2528	OG	SER	406A	17.141	61.774	19.702	1.00	48.75	A
	ATOM	2529	C	SER	406A	16.132	64.616	19.808	1.00	48.33	A
	ATOM	2530	O	SER	406A	16.776	65.323	19.037	1.00	48.81	A

	ATOM	2531	N	GLN	407A	14.814	64.503	19.744	1.00	50.58	A
	ATOM	2532	CA	GLN	407A	14.046	65.183	18.714	1.00	53.44	A
	ATOM	2533	CB	GLN	407A	12.825	64.319	18.377	1.00	58.12	A
	ATOM	2534	CG	GLN	407A	12.157	64.602	17.032	1.00	64.69	A
5	ATOM	2535	CD	GLN	407A	10.988	63.646	16.747	1.00	68.94	A
	ATOM	2536	OE1	GLN	407A	11.187	62.422	16.602	1.00	69.93	A
	ATOM	2537	NE2	GLN	407A	9.762	64.198	16.670	1.00	68.46	A
	ATOM	2538	C	GLN	407A	13.625	66.591	19.167	1.00	52.34	A
	ATOM	2539	O	GLN	407A	13.300	67.447	18.342	1.00	53.06	A
10	ATOM	2540	N	TRP	408A	13.653	66.827	20.478	1.00	50.52	A
	ATOM	2541	CA	TRP	408A	13.278	68.121	21.070	1.00	47.15	A
	ATOM	2542	CB	TRP	408A	12.712	67.899	22.480	1.00	47.62	A
	ATOM	2543	CG	TRP	408A	12.298	69.166	23.185	1.00	45.42	A
	ATOM	2544	CD2	TRP	408A	13.138	70.027	23.961	1.00	44.59	A
15	ATOM	2545	CE2	TRP	408A	12.339	71.108	24.397	1.00	45.35	A
	ATOM	2546	CE3	TRP	408A	14.494	69.994	24.327	1.00	43.59	A
	ATOM	2547	CD1	TRP	408A	11.060	69.738	23.182	1.00	44.59	A
	ATOM	2548	NE1	TRP	408A	11.075	70.906	23.906	1.00	44.36	A
	ATOM	2549	CZ2	TRP	408A	12.850	72.152	25.185	1.00	44.10	A
20	ATOM	2550	CZ3	TRP	408A	15.004	71.034	25.109	1.00	43.37	A
	ATOM	2551	CH2	TRP	408A	14.180	72.097	25.528	1.00	44.52	A
	ATOM	2552	C	TRP	408A	14.465	69.093	21.159	1.00	45.08	A
	ATOM	2553	O	TRP	408A	15.613	68.669	21.302	1.00	43.86	A
	ATOM	2554	N	GLY	409A	14.175	70.393	21.095	1.00	42.82	A
25	ATOM	2555	CA	GLY	409A	15.218	71.406	21.164	1.00	43.46	A
	ATOM	2556	C	GLY	409A	16.370	71.211	20.180	1.00	43.66	A
	ATOM	2557	O	GLY	409A	16.163	70.844	19.020	1.00	44.21	A
	ATOM	2558	N	GLU	410A	17.591	71.471	20.638	1.00	41.49	A
	ATOM	2559	CA	GLU	410A	18.770	71.306	19.800	1.00	40.52	A
30	ATOM	2560	CB	GLU	410A	19.793	72.407	20.113	1.00	40.01	A
	ATOM	2561	CG	GLU	410A	19.200	73.814	20.007	1.00	41.69	A
	ATOM	2562	CD	GLU	410A	20.217	74.929	20.215	1.00	43.58	A
	ATOM	2563	OE1	GLU	410A	21.018	74.843	21.167	1.00	44.12	A
	ATOM	2564	OE2	GLU	410A	20.207	75.910	19.435	1.00	46.45	A
35	ATOM	2565	C	GLU	410A	19.361	69.909	20.036	1.00	40.34	A
	ATOM	2566	O	GLU	410A	20.299	69.732	20.814	1.00	39.21	A
	ATOM	2567	N	SER	411A	18.771	68.924	19.362	1.00	39.75	A
	ATOM	2568	CA	SER	411A	19.185	67.527	19.441	1.00	39.86	A
	ATOM	2569	CB	SER	411A	20.603	67.361	18.880	1.00	40.77	A
40	ATOM	2570	OG	SER	411A	20.759	68.088	17.668	1.00	40.69	A
	ATOM	2571	C	SER	411A	19.134	67.007	20.870	1.00	39.90	A
	ATOM	2572	O	SER	411A	20.027	66.290	21.308	1.00	40.37	A
	ATOM	2573	N	GLY	412A	18.083	67.372	21.592	1.00	39.58	A
	ATOM	2574	CA	GLY	412A	17.938	66.921	22.962	1.00	39.11	A
45	ATOM	2575	C	GLY	412A	18.448	67.926	23.980	1.00	38.97	A
	ATOM	2576	O	GLY	412A	18.141	67.813	25.169	1.00	38.82	A
	ATOM	2577	N	TYR	413A	19.228	68.900	23.511	1.00	37.74	A
	ATOM	2578	CA	TYR	413A	19.794	69.934	24.375	1.00	38.61	A
	ATOM	2579	CB	TYR	413A	21.304	70.108	24.130	1.00	37.31	A
50	ATOM	2580	CG	TYR	413A	22.152	68.933	24.543	1.00	39.20	A
	ATOM	2581	CD1	TYR	413A	22.239	67.795	23.739	1.00	39.62	A
	ATOM	2582	CE1	TYR	413A	22.995	66.691	24.127	1.00	40.57	A
	ATOM	2583	CD2	TYR	413A	22.846	68.942	25.755	1.00	38.25	A
	ATOM	2584	CE2	TYR	413A	23.603	67.842	26.156	1.00	40.64	A
55	ATOM	2585	CZ	TYR	413A	23.670	66.721	25.337	1.00	41.06	A
	ATOM	2586	OH	TYR	413A	24.391	65.624	25.731	1.00	39.50	A
	ATOM	2587	C	TYR	413A	19.150	71.288	24.167	1.00	38.81	A
	ATOM	2588	O	TYR	413A	18.375	71.495	23.236	1.00	40.05	A
	ATOM	2589	N	PHE	414A	19.495	72.216	25.050	1.00	39.10	A

	ATOM	2590	CA	PHE	414A	19.001	73.574	24.954	1.00	36.68	A
	ATOM	2591	CB	PHE	414A	17.617	73.693	25.613	1.00	34.28	A
	ATOM	2592	CG	PHE	414A	17.633	73.678	27.114	1.00	33.79	A
	ATOM	2593	CD1	PHE	414A	17.781	74.858	27.832	1.00	32.09	A
5	ATOM	2594	CD2	PHE	414A	17.440	72.491	27.814	1.00	34.20	A
	ATOM	2595	CE1	PHE	414A	17.730	74.862	29.219	1.00	31.45	A
	ATOM	2596	CE2	PHE	414A	17.387	72.485	29.210	1.00	33.49	A
	ATOM	2597	CZ	PHE	414A	17.532	73.672	29.910	1.00	32.79	A
	ATOM	2598	C	PHE	414A	20.018	74.513	25.593	1.00	37.28	A
10	ATOM	2599	O	PHE	414A	20.740	74.134	26.515	1.00	36.20	A
	ATOM	2600	N	ARG	415A	20.096	75.726	25.061	1.00	38.22	A
	ATOM	2601	CA	ARG	415A	21.006	76.748	25.560	1.00	38.66	A
	ATOM	2602	CB	ARG	415A	21.611	77.540	24.397	1.00	40.09	A
	ATOM	2603	CG	ARG	415A	23.120	77.507	24.263	1.00	40.22	A
15	ATOM	2604	CD	ARG	415A	23.573	76.687	23.054	1.00	41.58	A
	ATOM	2605	NE	ARG	415A	22.840	77.029	21.837	1.00	43.62	A
	ATOM	2606	CZ	ARG	415A	23.009	78.144	21.125	1.00	44.94	A
	ATOM	2607	NH1	ARG	415A	23.906	79.055	21.487	1.00	44.20	A
	ATOM	2608	NH2	ARG	415A	22.253	78.359	20.055	1.00	45.25	A
20	ATOM	2609	C	ARG	415A	20.122	77.673	26.377	1.00	38.49	A
	ATOM	2610	O	ARG	415A	19.018	78.001	25.952	1.00	39.43	A
	ATOM	2611	N	ILE	416A	20.591	78.093	27.543	1.00	38.28	A
	ATOM	2612	CA	ILE	416A	19.804	78.990	28.374	1.00	36.26	A
	ATOM	2613	CB	ILE	416A	19.149	78.238	29.553	1.00	36.74	A
25	ATOM	2614	CG2	ILE	416A	20.230	77.724	30.507	1.00	36.95	A
	ATOM	2615	CG1	ILE	416A	18.167	79.164	30.284	1.00	35.75	A
	ATOM	2616	CD	ILE	416A	17.239	78.452	31.258	1.00	31.47	A
	ATOM	2617	C	ILE	416A	20.696	80.099	28.898	1.00	36.06	A
	ATOM	2618	O	ILE	416A	21.890	79.912	29.087	1.00	36.68	A
30	ATOM	2619	N	ARG	417A	20.106	81.261	29.124	1.00	38.25	A
	ATOM	2620	CA	ARG	417A	20.852	82.410	29.605	1.00	40.17	A
	ATOM	2621	CB	ARG	417A	19.905	83.599	29.776	1.00	44.10	A
	ATOM	2622	CG	ARG	417A	20.600	84.914	30.070	1.00	48.61	A
	ATOM	2623	CD	ARG	417A	19.639	86.085	29.904	1.00	52.98	A
35	ATOM	2624	NE	ARG	417A	19.153	86.209	28.527	1.00	55.54	A
	ATOM	2625	CZ	ARG	417A	18.539	87.293	28.052	1.00	57.09	A
	ATOM	2626	NH1	ARG	417A	18.336	88.346	28.849	1.00	55.64	A
	ATOM	2627	NH2	ARG	417A	18.137	87.333	26.784	1.00	56.47	A
	ATOM	2628	C	ARG	417A	21.588	82.121	30.910	1.00	39.45	A
40	ATOM	2629	O	ARG	417A	21.042	81.511	31.834	1.00	37.39	A
	ATOM	2630	N	ARG	418A	22.832	82.578	30.972	1.00	38.34	A
	ATOM	2631	CA	ARG	418A	23.682	82.366	32.130	1.00	37.76	A
	ATOM	2632	CB	ARG	418A	24.957	81.645	31.688	1.00	38.54	A
	ATOM	2633	CG	ARG	418A	26.111	81.668	32.691	1.00	39.33	A
45	ATOM	2634	CD	ARG	418A	27.175	80.636	32.316	1.00	36.59	A
	ATOM	2635	NE	ARG	418A	27.829	80.938	31.049	1.00	37.34	A
	ATOM	2636	CZ	ARG	418A	28.953	81.640	30.937	1.00	37.24	A
	ATOM	2637	NH1	ARG	418A	29.556	82.119	32.022	1.00	35.31	A
	ATOM	2638	NH2	ARG	418A	29.481	81.853	29.740	1.00	34.07	A
50	ATOM	2639	C	ARG	418A	24.047	83.643	32.862	1.00	38.33	A
	ATOM	2640	O	ARG	418A	24.236	84.694	32.248	1.00	39.03	A
	ATOM	2641	N	GLY	419A	24.142	83.545	34.185	1.00	38.88	A
	ATOM	2642	CA	GLY	419A	24.522	84.693	34.989	1.00	38.85	A
	ATOM	2643	C	GLY	419A	23.387	85.510	35.566	1.00	39.20	A
55	ATOM	2644	O	GLY	419A	23.638	86.474	36.290	1.00	40.52	A
	ATOM	2645	N	THR	420A	22.146	85.138	35.259	1.00	38.50	A
	ATOM	2646	CA	THR	420A	20.985	85.869	35.765	1.00	37.34	A
	ATOM	2647	CB	THR	420A	20.255	86.627	34.621	1.00	38.23	A
	ATOM	2648	OG1	THR	420A	19.733	85.690	33.671	1.00	39.26	A

	ATOM	2649	CG2	THR	420A	21.214	87.565	33.903	1.00	38.55	A
	ATOM	2650	C	THR	420A	19.980	84.943	36.449	1.00	37.35	A
	ATOM	2651	O	THR	420A	18.793	85.254	36.526	1.00	36.44	A
	ATOM	2652	N	ASP	421A	20.461	83.805	36.941	1.00	37.25	A
5	ATOM	2653	CA	ASP	421A	19.607	82.831	37.610	1.00	37.59	A
	ATOM	2654	CB	ASP	421A	19.327	83.283	39.047	1.00	35.28	A
	ATOM	2655	CG	ASP	421A	18.566	82.249	39.850	1.00	35.10	A
	ATOM	2656	OD1	ASP	421A	18.852	81.039	39.721	1.00	34.32	A
	ATOM	2657	OD2	ASP	421A	17.682	82.654	40.629	1.00	37.00	A
10	ATOM	2658	C	ASP	421A	18.305	82.673	36.828	1.00	39.20	A
	ATOM	2659	O	ASP	421A	17.213	82.629	37.402	1.00	40.60	A
	ATOM	2660	N	GLU	422A	18.446	82.601	35.506	1.00	38.16	A
	ATOM	2661	CA	GLU	422A	17.321	82.446	34.593	1.00	36.93	A
	ATOM	2662	CB	GLU	422A	17.855	82.223	33.175	1.00	38.17	A
15	ATOM	2663	CG	GLU	422A	16.791	81.914	32.144	1.00	38.33	A
	ATOM	2664	CD	GLU	422A	15.888	83.092	31.855	1.00	38.95	A
	ATOM	2665	OE1	GLU	422A	14.663	82.883	31.793	1.00	43.49	A
	ATOM	2666	OE2	GLU	422A	16.392	84.219	31.677	1.00	39.55	A
	ATOM	2667	C	GLU	422A	16.416	81.281	34.998	1.00	36.05	A
20	ATOM	2668	O	GLU	422A	16.832	80.120	34.971	1.00	35.09	A
	ATOM	2669	N	CYS	423A	15.176	81.596	35.363	1.00	35.10	A
	ATOM	2670	CA	CYS	423A	14.221	80.578	35.774	1.00	33.64	A
	ATOM	2671	CB	CYS	423A	13.856	79.684	34.583	1.00	36.64	A
	ATOM	2672	SG	CYS	423A	12.957	80.534	33.262	1.00	39.23	A
25	ATOM	2673	C	CYS	423A	14.758	79.714	36.916	1.00	33.57	A
	ATOM	2674	O	CYS	423A	14.493	78.517	36.970	1.00	33.36	A
	ATOM	2675	N	ALA	424A	15.517	80.331	37.817	1.00	32.90	A
	ATOM	2676	CA	ALA	424A	16.091	79.648	38.975	1.00	33.91	A
	ATOM	2677	CB	ALA	424A	14.964	79.123	39.875	1.00	31.78	A
30	ATOM	2678	C	ALA	424A	17.066	78.511	38.633	1.00	33.09	A
	ATOM	2679	O	ALA	424A	17.350	77.657	39.471	1.00	31.34	A
	ATOM	2680	N	ILE	425A	17.605	78.515	37.419	1.00	32.10	A
	ATOM	2681	CA	ILE	425A	18.512	77.449	37.028	1.00	31.92	A
	ATOM	2682	CB	ILE	425A	18.705	77.404	35.499	1.00	30.21	A
35	ATOM	2683	CG2	ILE	425A	19.713	78.442	35.054	1.00	28.22	A
	ATOM	2684	CG1	ILE	425A	19.152	76.002	35.098	1.00	29.83	A
	ATOM	2685	CD	ILE	425A	19.125	75.741	33.618	1.00	33.99	A
	ATOM	2686	C	ILE	425A	19.867	77.516	37.716	1.00	32.80	A
	ATOM	2687	O	ILE	425A	20.665	76.594	37.607	1.00	33.54	A
40	ATOM	2688	N	GLU	426A	20.118	78.604	38.433	1.00	32.54	A
	ATOM	2689	CA	GLU	426A	21.374	78.775	39.158	1.00	33.10	A
	ATOM	2690	CB	GLU	426A	22.031	80.101	38.757	1.00	32.43	A
	ATOM	2691	CG	GLU	426A	22.855	80.026	37.474	1.00	32.88	A
	ATOM	2692	CD	GLU	426A	23.008	81.371	36.769	1.00	33.47	A
45	ATOM	2693	OE1	GLU	426A	22.923	82.430	37.435	1.00	31.63	A
	ATOM	2694	OE2	GLU	426A	23.224	81.361	35.540	1.00	32.49	A
	ATOM	2695	C	GLU	426A	21.117	78.748	40.667	1.00	33.04	A
	ATOM	2696	O	GLU	426A	21.924	79.235	41.451	1.00	34.57	A
	ATOM	2697	N	SER	427A	20.001	78.142	41.062	1.00	33.79	A
50	ATOM	2698	CA	SER	427A	19.597	78.070	42.465	1.00	32.57	A
	ATOM	2699	CB	SER	427A	18.098	78.372	42.579	1.00	33.62	A
	ATOM	2700	OG	SER	427A	17.328	77.302	42.046	1.00	29.81	A
	ATOM	2701	C	SER	427A	19.851	76.757	43.211	1.00	33.11	A
	ATOM	2702	O	SER	427A	19.988	76.759	44.437	1.00	31.34	A
55	ATOM	2703	N	ILE	428A	19.912	75.637	42.495	1.00	32.74	A
	ATOM	2704	CA	ILE	428A	20.075	74.371	43.184	1.00	30.96	A
	ATOM	2705	CB	ILE	428A	18.666	73.818	43.554	1.00	31.66	A
	ATOM	2706	CG2	ILE	428A	17.890	73.463	42.291	1.00	31.09	A
	ATOM	2707	CG1	ILE	428A	18.788	72.630	44.503	1.00	32.06	A

	ATOM	2708	CD	ILE	428A	17.488	72.276	45.175	1.00	31.49	A
	ATOM	2709	C	ILE	428A	20.910	73.299	42.487	1.00	31.43	A
	ATOM	2710	O	ILE	428A	20.530	72.131	42.436	1.00	31.97	A
	ATOM	2711	N	ALA	429A	22.063	73.697	41.965	1.00	31.32	A
5	ATOM	2712	CA	ALA	429A	22.959	72.749	41.314	1.00	30.95	A
	ATOM	2713	CB	ALA	429A	24.188	73.473	40.748	1.00	25.72	A
	ATOM	2714	C	ALA	429A	23.383	71.721	42.368	1.00	31.99	A
	ATOM	2715	O	ALA	429A	23.699	72.076	43.503	1.00	30.61	A
	ATOM	2716	N	MET	430A	23.383	70.449	41.982	1.00	32.64	A
10	ATOM	2717	CA	MET	430A	23.743	69.362	42.881	1.00	32.85	A
	ATOM	2718	CB	MET	430A	22.462	68.637	43.325	1.00	31.31	A
	ATOM	2719	CG	MET	430A	22.639	67.424	44.222	1.00	30.71	A
	ATOM	2720	SD	MET	430A	23.015	65.910	43.316	1.00	32.75	A
	ATOM	2721	CE	MET	430A	23.629	64.861	44.636	1.00	31.88	A
15	ATOM	2722	C	MET	430A	24.711	68.414	42.163	1.00	35.04	A
	ATOM	2723	O	MET	430A	24.503	68.081	40.994	1.00	35.67	A
	ATOM	2724	N	ALA	431A	25.772	68.001	42.862	1.00	34.47	A
	ATOM	2725	CA	ALA	431A	26.786	67.110	42.295	1.00	34.38	A
	ATOM	2726	CB	ALA	431A	28.083	67.874	42.066	1.00	32.98	A
20	ATOM	2727	C	ALA	431A	27.066	65.881	43.159	1.00	36.79	A
	ATOM	2728	O	ALA	431A	26.897	65.893	44.388	1.00	36.33	A
	ATOM	2729	N	ALA	432A	27.509	64.819	42.502	1.00	36.95	A
	ATOM	2730	CA	ALA	432A	27.819	63.581	43.188	1.00	37.10	A
	ATOM	2731	CB	ALA	432A	26.629	62.639	43.124	1.00	37.73	A
25	ATOM	2732	C	ALA	432A	29.028	62.956	42.514	1.00	37.08	A
	ATOM	2733	O	ALA	432A	29.245	63.146	41.318	1.00	37.32	A
	ATOM	2734	N	ILE	433A	29.823	62.234	43.297	1.00	36.44	A
	ATOM	2735	CA	ILE	433A	31.009	61.565	42.787	1.00	35.47	A
	ATOM	2736	CB	ILE	433A	32.210	61.752	43.738	1.00	37.53	A
30	ATOM	2737	CG2	ILE	433A	33.442	61.053	43.169	1.00	38.28	A
	ATOM	2738	CG1	ILE	433A	32.501	63.244	43.947	1.00	37.44	A
	ATOM	2739	CD	ILE	433A	32.934	63.976	42.696	1.00	35.24	A
	ATOM	2740	C	ILE	433A	30.704	60.069	42.653	1.00	36.77	A
	ATOM	2741	O	ILE	433A	30.509	59.367	43.650	1.00	34.52	A
35	ATOM	2742	N	PRO	434A	30.635	59.569	41.411	1.00	34.59	A
	ATOM	2743	CD	PRO	434A	30.743	60.300	40.136	1.00	33.72	A
	ATOM	2744	CA	PRO	434A	30.351	58.153	41.172	1.00	35.09	A
	ATOM	2745	CB	PRO	434A	29.912	58.146	39.710	1.00	34.64	A
	ATOM	2746	CG	PRO	434A	30.831	59.176	39.116	1.00	31.80	A
40	ATOM	2747	C	PRO	434A	31.581	57.264	41.399	1.00	33.42	A
	ATOM	2748	O	PRO	434A	32.710	57.702	41.214	1.00	34.39	A
	ATOM	2749	N	ILE	435A	31.353	56.021	41.815	1.00	34.08	A
	ATOM	2750	CA	ILE	435A	32.441	55.067	42.012	1.00	33.73	A
	ATOM	2751	CB	ILE	435A	32.258	54.242	43.314	1.00	30.92	A
45	ATOM	2752	CG2	ILE	435A	33.438	53.280	43.481	1.00	31.80	A
	ATOM	2753	CG1	ILE	435A	32.154	55.183	44.521	1.00	29.91	A
	ATOM	2754	CD	ILE	435A	32.286	54.501	45.871	1.00	26.33	A
	ATOM	2755	C	ILE	435A	32.373	54.132	40.803	1.00	34.07	A
	ATOM	2756	O	ILE	435A	31.408	53.396	40.641	1.00	35.50	A
50	ATOM	2757	N	PRO	436A	33.390	54.156	39.931	1.00	36.36	A
	ATOM	2758	CD	PRO	436A	34.594	55.004	39.907	1.00	36.61	A
	ATOM	2759	CA	PRO	436A	33.355	53.278	38.754	1.00	37.02	A
	ATOM	2760	CB	PRO	436A	34.623	53.666	37.989	1.00	34.52	A
	ATOM	2761	CG	PRO	436A	34.885	55.072	38.420	1.00	34.93	A
55	ATOM	2762	C	PRO	436A	33.340	51.793	39.099	1.00	39.51	A
	ATOM	2763	O	PRO	436A	33.627	51.398	40.226	1.00	39.49	A
	ATOM	2764	N	LYS	437A	32.978	50.977	38.119	1.00	43.47	A
	ATOM	2765	CA	LYS	437A	32.963	49.531	38.291	1.00	48.38	A
	ATOM	2766	CB	LYS	437A	32.320	48.887	37.058	1.00	49.11	A

	ATOM	2767	CG	LYS	437A	32.526	47.393	36.881	1.00	49.63	A
	ATOM	2768	CD	LYS	437A	31.715	46.920	35.673	1.00	50.90	A
	ATOM	2769	CE	LYS	437A	31.929	45.447	35.348	1.00	52.33	A
	ATOM	2770	NZ	LYS	437A	33.235	45.191	34.653	1.00	55.07	A
5	ATOM	2771	C	LYS	437A	34.443	49.158	38.398	1.00	50.45	A
	ATOM	2772	O	LYS	437A	35.264	49.679	37.637	1.00	50.76	A
	ATOM	2773	N	LEU	438A	34.794	48.284	39.336	1.00	52.43	A
	ATOM	2774	CA	LEU	438A	36.198	47.906	39.500	1.00	55.22	A
	ATOM	2775	CB	LEU	438A	36.355	46.915	40.661	1.00	55.09	A
10	ATOM	2776	CG	LEU	438A	37.802	46.509	40.985	1.00	54.70	A
	ATOM	2777	CD1	LEU	438A	38.588	47.732	41.435	1.00	54.64	A
	ATOM	2778	CD2	LEU	438A	37.822	45.459	42.065	1.00	54.77	A
	ATOM	2779	C	LEU	438A	36.784	47.286	38.225	1.00	57.41	A
	ATOM	2780	OT1	LEU	438A	36.041	46.564	37.513	1.00	58.97	A
15	ATOM	2781	OT	LEU	438A	37.994	47.516	37.960	1.00	59.05	A
	ATOM	2782	CL	CL-	900A	-3.632	80.012	48.305	1.00	13.29	A
	ATOM	2783	O	HOH	601A	18.169	68.482	44.394	1.00	11.76	A
	ATOM	2784	O	HOH	602A	10.938	77.898	31.250	1.00	27.60	A
	ATOM	2785	O	HOH	603A	15.512	52.049	33.178	1.00	30.94	A
20	ATOM	2786	O	HOH	604A	27.453	52.520	63.606	1.00	26.34	A
	ATOM	2787	O	HOH	605A	21.723	76.185	46.361	1.00	30.34	A
	ATOM	2788	O	HOH	606A	13.455	77.729	52.150	1.00	34.66	A
	ATOM	2789	O	HOH	607A	20.896	82.640	34.301	1.00	38.12	A
	ATOM	2790	O	HOH	608A	15.697	66.105	25.388	1.00	33.84	A
25	ATOM	2791	O	HOH	609A	27.125	76.995	59.454	1.00	21.63	A
	ATOM	2792	O	HOH	610A	26.405	57.003	54.145	1.00	26.72	A
	ATOM	2793	O	HOH	611A	32.616	59.568	65.168	1.00	29.04	A
	ATOM	2794	O	HOH	612A	28.123	80.351	48.284	1.00	28.30	A
	ATOM	2795	O	HOH	613A	23.298	74.332	44.939	1.00	33.20	A
30	ATOM	2796	O	HOH	614A	22.140	74.374	55.137	1.00	26.25	A
	ATOM	2797	O	HOH	615A	25.343	61.830	30.588	1.00	31.09	A
	ATOM	2798	O	HOH	616A	18.144	80.900	46.449	1.00	30.91	A
	ATOM	2799	O	HOH	617A	31.824	63.988	66.070	1.00	35.56	A
	ATOM	2800	O	HOH	618A	19.401	74.924	39.988	1.00	35.35	A
35	ATOM	2801	O	HOH	619A	30.280	65.234	63.777	1.00	31.14	A
	ATOM	2802	O	HOH	620A	23.888	62.445	64.864	1.00	32.26	A
	ATOM	2803	O	HOH	621A	15.535	76.237	43.942	1.00	34.13	A
	ATOM	2804	O	HOH	622A	12.135	75.658	50.819	1.00	31.59	A
	ATOM	2805	O	HOH	623A	20.165	58.674	56.407	1.00	33.70	A
40	ATOM	2806	O	HOH	624A	10.910	56.702	43.655	1.00	30.60	A
	ATOM	2807	O	HOH	625A	20.112	74.627	53.295	1.00	30.56	A
	ATOM	2808	O	HOH	626A	24.934	86.732	61.426	1.00	31.95	A
	ATOM	2809	O	HOH	627A	26.090	63.737	52.701	1.00	39.26	A
	ATOM	2810	O	HOH	628A	10.812	64.415	47.139	1.00	35.97	A
45	ATOM	2811	O	HOH	629A	30.191	49.380	40.769	1.00	31.02	A
	ATOM	2812	O	HOH	630A	20.880	55.862	26.351	1.00	40.81	A
	ATOM	2813	O	HOH	631A	7.767	66.537	52.745	1.00	31.16	A
	ATOM	2814	O	HOH	632A	30.753	73.229	46.587	1.00	38.21	A
	ATOM	2815	O	HOH	633A	25.322	69.724	50.098	1.00	29.72	A
50	ATOM	2816	O	HOH	634A	20.161	56.240	31.717	1.00	35.03	A
	ATOM	2817	O	HOH	635A	23.332	58.645	52.929	1.00	34.39	A
	ATOM	2818	O	HOH	636A	29.957	51.787	42.248	1.00	38.58	A
	ATOM	2819	O	HOH	637A	23.190	70.688	20.696	1.00	30.77	A
	ATOM	2820	O	HOH	638A	32.272	74.565	42.979	1.00	31.07	A
55	ATOM	2821	O	HOH	639A	21.972	57.753	28.013	1.00	43.23	A
	ATOM	2822	O	HOH	640A	13.244	62.777	46.116	1.00	35.42	A
	ATOM	2823	O	HOH	641A	20.506	63.172	31.940	1.00	33.23	A
	ATOM	2824	O	HOH	642A	15.735	84.334	39.230	1.00	41.14	A
	ATOM	2825	O	HOH	643A	10.954	80.152	39.616	1.00	40.67	A

	ATOM	2826	O	HOH	644A	18.884	52.341	39.071	1.00	37.37	A
	ATOM	2827	O	HOH	645A	13.198	75.137	68.338	1.00	34.54	A
	ATOM	2828	O	HOH	646A	31.632	57.455	51.253	1.00	36.72	A
	ATOM	2829	O	HOH	647A	25.310	54.439	53.220	1.00	34.47	A
5	ATOM	2830	O	HOH	648A	16.528	47.626	53.723	1.00	41.70	A
	ATOM	2831	O	HOH	649A	33.585	62.080	65.182	1.00	33.66	A
	ATOM	2832	O	HOH	650A	35.659	81.764	32.755	1.00	36.53	A
	ATOM	2833	O	HOH	651A	7.649	73.350	43.906	1.00	39.78	A
	ATOM	2834	O	HOH	652A	18.422	65.496	31.722	1.00	37.26	A
10	ATOM	2835	O	HOH	653A	30.967	57.771	53.975	1.00	38.78	A
	ATOM	2836	O	HOH	654A	10.130	63.696	68.877	1.00	40.07	A
	ATOM	2837	O	HOH	655A	8.684	63.607	26.569	1.00	37.41	A
	ATOM	2838	O	HOH	656A	5.280	70.644	47.452	1.00	40.55	A
	ATOM	2839	O	HOH	657A	33.054	67.914	66.468	1.00	33.28	A
15	ATOM	2840	O	HOH	658A	19.222	56.885	24.448	1.00	39.78	A
	ATOM	2841	O	HOH	659A	19.353	69.624	41.469	1.00	46.78	A
	ATOM	2842	O	HOH	660A	35.068	71.806	26.050	1.00	34.62	A
	ATOM	2843	O	HOH	661A	4.732	57.455	29.255	1.00	53.12	A
	ATOM	2844	O	HOH	662A	10.580	60.448	55.237	1.00	40.95	A
20	ATOM	2845	O	HOH	663A	14.041	51.342	63.684	1.00	41.81	A
	ATOM	2846	O	HOH	664A	7.078	59.306	49.566	1.00	46.20	A
	ATOM	2847	O	HOH	665A	18.800	83.169	21.163	1.00	33.92	A
	ATOM	2848	O	HOH	666A	22.200	48.361	30.538	1.00	41.07	A
	ATOM	2849	O	HOH	667A	30.083	63.781	61.092	1.00	37.16	A
25	ATOM	2850	O	HOH	668A	11.060	70.568	41.082	1.00	38.03	A
	ATOM	2851	O	HOH	669A	7.330	70.983	45.532	1.00	38.34	A
	ATOM	2852	O	HOH	670A	33.363	65.662	67.672	1.00	35.87	A
	ATOM	2853	O	HOH	671A	31.165	80.103	23.481	1.00	43.36	A
	ATOM	2854	O	HOH	672A	23.802	46.615	36.731	1.00	42.68	A
30	ATOM	2855	O	HOH	673A	27.595	85.624	33.070	1.00	38.83	A
	ATOM	2856	O	HOH	674A	34.517	60.887	21.335	1.00	41.77	A
	ATOM	2857	O	HOH	675A	3.060	62.602	46.077	1.00	43.70	A
	ATOM	2858	O	HOH	676A	18.615	62.523	28.749	1.00	33.95	A
	ATOM	2859	O	HOH	677A	8.904	57.310	51.046	1.00	40.46	A
35	ATOM	2860	O	HOH	678A	13.747	80.530	62.159	1.00	39.04	A
	ATOM	2861	O	HOH	679A	24.592	63.251	24.642	1.00	40.27	A
	ATOM	2862	O	HOH	680A	16.374	69.896	42.427	1.00	41.94	A
	ATOM	2863	O	HOH	681A	31.375	50.341	30.059	1.00	41.79	A
	ATOM	2864	O	HOH	682A	25.225	49.630	30.347	1.00	39.25	A
40	ATOM	2865	O	HOH	683A	39.293	62.271	31.647	1.00	45.38	A
	ATOM	2866	O	HOH	684A	26.137	45.282	53.653	1.00	17.09	A
	ATOM	2867	O	HOH	685A	20.489	61.501	30.333	1.00	6.14	A
	ATOM	2868	O	HOH	686A	31.035	58.788	22.030	1.00	5.92	A
	ATOM	2869	O	HOH	687A	27.710	56.282	27.941	1.00	5.60	A
45	ATOM	2870	O	HOH	688A	4.354	71.796	62.410	1.00	5.15	A
	ATOM	2871	O	HOH	689A	3.636	48.793	34.772	1.00	5.05	A
	ATOM	2872	O	HOH	690A	29.863	54.516	23.948	1.00	5.02	A
	ATOM	2873	O	HOH	691A	28.352	86.577	35.807	1.00	4.91	A
	ATOM	2874	O	HOH	692A	25.329	42.792	36.561	1.00	4.77	A
50	ATOM	2875	O	HOH	693A	4.083	74.582	59.092	1.00	4.73	A
	ATOM	2876	O	HOH	694A	44.952	64.612	25.739	1.00	4.73	A
	ATOM	2877	O	HOH	695A	32.517	47.673	40.974	1.00	4.65	A
	ATOM	2878	O	HOH	696A	33.562	62.425	62.284	1.00	4.64	A
	ATOM	2879	O	HOH	697A	7.230	72.784	41.539	1.00	4.63	A
55	ATOM	2880	O	HOH	698A	5.244	60.956	61.301	1.00	4.58	A
	ATOM	2881	O	HOH	699A	39.053	69.981	44.182	1.00	4.55	A
	ATOM	2882	O	HOH	700A	33.819	74.412	24.576	1.00	4.54	A
	ATOM	2883	O	HOH	701A	31.740	72.711	43.511	1.00	4.52	A
	ATOM	2884	O	HOH	702A	45.554	71.527	26.303	1.00	4.49	A

	ATOM	2885	O	HOH	703A	24.448	46.703	57.001	1.00	4.48	A
	ATOM	2886	O	HOH	704A	10.720	47.639	32.819	1.00	4.47	A
	ATOM	2887	O	HOH	705A	9.037	48.437	33.622	1.00	4.44	A
	ATOM	2888	O	HOH	706A	16.461	47.776	43.221	1.00	4.43	A
5	ATOM	2889	O	HOH	707A	14.999	83.036	47.881	1.00	4.40	A
	ATOM	2890	O	HOH	708A	22.305	78.394	68.911	1.00	4.40	A
	ATOM	2891	O	HOH	709A	10.718	66.626	40.795	1.00	4.38	A
	ATOM	2892	O	HOH	710A	28.533	69.968	51.296	1.00	4.35	A
	ATOM	2893	O	HOH	711A	33.956	82.652	36.572	1.00	4.35	A
10	ATOM	2894	O	HOH	712A	23.042	41.924	60.933	1.00	4.35	A
	ATOM	2895	O	HOH	713A	17.061	74.236	72.639	1.00	4.29	A
	ATOM	2896	O	HOH	714A	12.288	52.320	53.742	1.00	4.24	A
	ATOM	2897	O	HOH	715A	27.907	63.291	51.331	1.00	4.24	A
	ATOM	2898	O	HOH	716A	29.358	71.051	65.545	1.00	4.23	A
15	ATOM	2899	O	HOH	717A	36.271	62.681	65.735	1.00	4.22	A
	ATOM	2900	O	HOH	718A	12.566	49.530	61.872	1.00	4.22	A
	ATOM	2901	O	HOH	719A	27.508	66.761	51.382	1.00	4.22	A
	ATOM	2902	O	HOH	720A	6.096	75.012	45.422	1.00	4.21	A
	ATOM	2903	O	HOH	721A	30.720	50.259	34.360	1.00	4.19	A
20	ATOM	2904	O	HOH	722A	26.237	62.863	71.354	1.00	4.18	A
	ATOM	2905	O	HOH	723A	45.577	80.267	37.192	1.00	4.18	A
	ATOM	2906	O	HOH	724A	14.176	74.055	15.598	1.00	4.15	A
	ATOM	2907	O	HOH	725A	26.120	45.873	63.750	1.00	4.14	A
	ATOM	2908	O	HOH	726A	16.979	89.484	39.650	1.00	4.12	A
25	ATOM	2909	O	HOH	727A	42.345	74.414	34.207	1.00	4.11	A
	ATOM	2910	O	HOH	728A	41.737	54.252	29.173	1.00	4.11	A
	ATOM	2911	O	HOH	729A	30.182	66.966	52.565	1.00	4.10	A
	ATOM	2912	O	HOH	730A	12.327	64.193	21.018	1.00	4.10	A
	ATOM	2913	O	HOH	731A	8.593	55.211	67.965	1.00	4.10	A
30	ATOM	2914	O	HOH	732A	34.033	75.698	44.865	1.00	4.10	A
	ATOM	2915	O	HOH	733A	32.574	62.863	23.002	1.00	4.10	A
	ATOM	2916	O	HOH	734A	6.687	54.216	41.272	1.00	4.09	A
	ATOM	2917	O	HOH	735A	35.527	70.135	65.654	1.00	4.08	A
	ATOM	2918	O	HOH	736A	-9.321	65.176	56.509	1.00	4.07	A
35	ATOM	2919	O	HOH	737A	28.430	78.878	50.205	1.00	4.06	A
	ATOM	2920	O	HOH	738A	-6.269	63.354	54.253	1.00	4.05	A
	ATOM	2921	O	HOH	739A	33.327	60.694	58.520	1.00	4.04	A
	ATOM	2922	O	HOH	740A	28.167	57.936	23.265	1.00	4.03	A
	ATOM	2923	O	HOH	741A	13.712	82.639	24.770	1.00	4.03	A
40	ATOM	2924	O	HOH	742A	6.261	61.124	52.597	1.00	4.02	A
	ATOM	2925	O	HOH	743A	4.472	60.617	65.559	1.00	4.01	A
	ATOM	2926	O	HOH	744A	28.607	77.558	30.134	1.00	4.01	A
	ATOM	2927	O	HOH	745A	18.433	75.824	69.116	1.00	4.01	A
	ATOM	2928	O	HOH	746A	7.975	92.733	22.883	1.00	4.00	A
45	ATOM	2929	O	HOH	747A	39.373	80.205	39.055	1.00	3.97	A
	ATOM	2930	O	HOH	748A	22.785	49.817	32.954	1.00	3.97	A
	ATOM	1	C1	NAG	001A	5.196	77.252	49.244	1.00	23.42	L
	ATOM	2	C2	NAG	001A	4.464	78.215	48.304	1.00	25.59	L
	ATOM	3	C3	NAG	001A	5.226	79.519	48.041	1.00	26.59	L
50	ATOM	4	C4	NAG	001A	5.960	80.061	49.287	1.00	27.11	L
	ATOM	5	C5	NAG	001A	6.682	78.930	50.029	1.00	26.08	L
	ATOM	6	C6	NAG	001A	7.298	79.378	51.337	1.00	25.05	L
	ATOM	7	C7	NAG	001A	3.057	77.385	46.539	1.00	28.62	L
	ATOM	8	C8	NAG	001A	2.912	76.717	45.165	1.00	28.98	L
55	ATOM	9	N2	NAG	001A	4.279	77.567	47.013	1.00	27.59	L
	ATOM	10	O3	NAG	001A	4.293	80.494	47.567	1.00	26.71	L
	ATOM	11	O4	NAG	001A	6.942	81.044	48.874	1.00	29.85	L
	ATOM	12	O5	NAG	001A	5.743	77.925	50.371	1.00	23.38	L
	ATOM	13	O6	NAG	001A	6.277	79.720	52.262	1.00	27.18	L

	ATOM	14	O7	NAG	001A	2.058	77.696	47.184	1.00	31.12	L
	ATOM	1	C1	NAG	002A	42.427	57.140	26.608	1.00	23.42	P
	ATOM	2	C2	NAG	002A	43.706	56.340	26.341	1.00	25.59	P
	ATOM	3	C3	NAG	002A	44.201	56.435	24.894	1.00	26.59	P
5	ATOM	4	C4	NAG	002A	43.060	56.440	23.854	1.00	27.11	P
	ATOM	5	C5	NAG	002A	41.923	57.368	24.299	1.00	26.08	P
	ATOM	6	C6	NAG	002A	40.714	57.301	23.389	1.00	25.05	P
	ATOM	7	C7	NAG	002A	45.364	56.057	28.058	1.00	28.62	P
	ATOM	8	C8	NAG	002A	46.498	56.639	28.915	1.00	28.98	P
10	ATOM	9	N2	NAG	002A	44.772	56.857	27.187	1.00	27.59	P
	ATOM	10	O3	NAG	002A	45.075	55.329	24.647	1.00	26.71	P
	ATOM	11	O4	NAG	002A	43.572	56.913	22.583	1.00	29.85	P
	ATOM	12	O5	NAG	002A	41.464	56.961	25.576	1.00	23.38	P
	ATOM	13	O6	NAG	002A	40.099	56.026	23.493	1.00	27.18	P
15	ATOM	14	O7	NAG	002A	45.002	54.894	28.221	1.00	31.12	P
	ATOM	1	CB	ASP	1B	54.318	39.874	62.314	1.00	40.28	B
	ATOM	2	CG	ASP	1B	54.423	40.905	63.423	1.00	41.06	B
	ATOM	3	OD1	ASP	1B	55.542	41.467	63.563	1.00	39.54	B
	ATOM	4	OD2	ASP	1B	53.426	41.142	64.152	1.00	37.74	B
20	ATOM	5	C	ASP	1B	53.003	38.191	61.134	1.00	42.30	B
	ATOM	6	O	ASP	1B	52.833	37.049	61.587	1.00	42.94	B
	ATOM	7	N	ASP	1B	52.119	39.138	63.269	1.00	41.50	B
	ATOM	8	CA	ASP	1B	52.879	39.428	62.018	1.00	41.04	B
	ATOM	9	N	THR	2B	53.322	38.435	59.868	1.00	40.11	B
25	ATOM	10	CA	THR	2B	53.553	37.362	58.920	1.00	38.84	B
	ATOM	11	CB	THR	2B	53.111	37.735	57.479	1.00	37.36	B
	ATOM	12	OG1	THR	2B	54.105	38.568	56.871	1.00	35.14	B
	ATOM	13	CG2	THR	2B	51.773	38.473	57.496	1.00	32.07	B
	ATOM	14	C	THR	2B	55.078	37.339	58.985	1.00	40.07	B
30	ATOM	15	O	THR	2B	55.686	38.276	59.513	1.00	40.24	B
	ATOM	16	N	PRO	3B	55.718	36.270	58.489	1.00	40.73	B
	ATOM	17	CD	PRO	3B	55.201	34.921	58.178	1.00	40.17	B
	ATOM	18	CA	PRO	3B	57.184	36.281	58.564	1.00	39.49	B
	ATOM	19	CB	PRO	3B	57.554	34.807	58.394	1.00	39.93	B
35	ATOM	20	CG	PRO	3B	56.413	34.245	57.583	1.00	41.03	B
	ATOM	21	C	PRO	3B	57.871	37.184	57.538	1.00	40.61	B
	ATOM	22	O	PRO	3B	59.094	37.158	57.404	1.00	40.96	B
	ATOM	23	N	ALB	4B	57.097	38.002	56.828	1.00	41.42	B
	ATOM	24	CA	ALB	4B	57.684	38.889	55.823	1.00	40.22	B
40	ATOM	25	CB	ALB	4B	56.620	39.351	54.848	1.00	40.48	B
	ATOM	26	C	ALB	4B	58.385	40.102	56.423	1.00	39.92	B
	ATOM	27	O	ALB	4B	58.054	40.548	57.514	1.00	38.21	B
	ATOM	28	N	ASN	5B	59.375	40.619	55.707	1.00	39.47	B
	ATOM	29	CA	ASN	5B	60.084	41.804	56.154	1.00	39.98	B
45	ATOM	30	CB	ASN	5B	61.367	41.445	56.913	1.00	39.84	B
	ATOM	31	CG	ASN	5B	62.095	42.678	57.411	1.00	41.98	B
	ATOM	32	OD1	ASN	5B	61.475	43.722	57.592	1.00	41.90	B
	ATOM	33	ND2	ASN	5B	63.408	42.570	57.642	1.00	45.23	B
	ATOM	34	C	ASN	5B	60.416	42.639	54.927	1.00	40.12	B
50	ATOM	35	O	ASN	5B	61.501	42.527	54.359	1.00	41.86	B
	ATOM	36	N	CYS	6B	59.472	43.478	54.516	1.00	39.04	B
	ATOM	37	CA	CYS	6B	59.673	44.312	53.341	1.00	38.07	B
	ATOM	38	C	CYS	6B	59.826	45.787	53.674	1.00	37.39	B
	ATOM	39	O	CYS	6B	59.431	46.232	54.748	1.00	35.73	B
55	ATOM	40	CB	CYS	6B	58.530	44.096	52.356	1.00	37.67	B
	ATOM	41	SG	CYS	6B	58.494	42.400	51.690	1.00	39.13	B
	ATOM	42	N	THR	7B	60.399	46.541	52.738	1.00	37.35	B
	ATOM	43	CA	THR	7B	60.655	47.956	52.955	1.00	37.54	B
	ATOM	44	CB	THR	7B	62.149	48.241	52.863	1.00	38.33	B

	ATOM	45	OG1	THR	7B	62.586	48.013	51.516	1.00	38.26	B
	ATOM	46	CG2	THR	7B	62.920	47.344	53.814	1.00	32.54	B
	ATOM	47	C	THR	7B	59.972	48.916	51.995	1.00	38.67	B
	ATOM	48	O	THR	7B	59.522	48.532	50.913	1.00	38.94	B
5	ATOM	49	N	TYR	8B	59.931	50.175	52.397	1.00	37.53	B
	ATOM	50	CA	TYR	8B	59.313	51.238	51.602	1.00	37.29	B
	ATOM	51	CB	TYR	8B	59.626	52.595	52.251	1.00	36.29	B
	ATOM	52	CG	TYR	8B	58.919	53.777	51.589	1.00	36.06	B
	ATOM	53	CD1	TYR	8B	57.612	54.126	51.962	1.00	36.55	B
10	ATOM	54	CE1	TYR	8B	56.975	55.210	51.346	1.00	35.31	B
	ATOM	55	CD2	TYR	8B	59.577	54.518	50.610	1.00	35.54	B
	ATOM	56	CE2	TYR	8B	58.942	55.595	49.998	1.00	37.01	B
	ATOM	57	CZ	TYR	8B	57.648	55.940	50.363	1.00	36.40	B
	ATOM	58	OH	TYR	8B	57.045	56.994	49.750	1.00	35.00	B
15	ATOM	59	C	TYR	8B	59.855	51.195	50.160	1.00	37.13	B
	ATOM	60	O	TYR	8B	59.080	51.115	49.195	1.00	36.11	B
	ATOM	61	N	PRO	9B	61.194	51.207	49.954	1.00	37.20	B
	ATOM	62	CD	PRO	9B	62.271	51.344	50.951	1.00	37.24	B
	ATOM	63	CA	PRO	9B	61.756	51.159	48.594	1.00	38.92	B
20	ATOM	64	CB	PRO	9B	63.247	50.972	48.847	1.00	36.25	B
	ATOM	65	CG	PRO	9B	63.456	51.754	50.091	1.00	37.48	B
	ATOM	66	C	PRO	9B	61.170	50.048	47.705	1.00	39.85	B
	ATOM	67	O	PRO	9B	61.001	50.237	46.500	1.00	38.74	B
	ATOM	68	N	ASP	10B	60.860	48.899	48.303	1.00	39.71	B
25	ATOM	69	CA	ASP	10B	60.285	47.781	47.554	1.00	41.70	B
	ATOM	70	CB	ASP	10B	60.152	46.533	48.441	1.00	43.47	B
	ATOM	71	CG	ASP	10B	61.464	46.130	49.101	1.00	45.58	B
	ATOM	72	OD1	ASP	10B	62.496	46.066	48.394	1.00	43.76	B
	ATOM	73	OD2	ASP	10B	61.450	45.868	50.329	1.00	46.03	B
30	ATOM	74	C	ASP	10B	58.896	48.129	47.009	1.00	41.37	B
	ATOM	75	O	ASP	10B	58.497	47.633	45.955	1.00	41.01	B
	ATOM	76	N	LEU	11B	58.162	48.963	47.746	1.00	39.73	B
	ATOM	77	CA	LEU	11B	56.818	49.385	47.355	1.00	40.04	B
	ATOM	78	CB	LEU	11B	56.126	50.131	48.501	1.00	37.02	B
35	ATOM	79	CG	LEU	11B	54.863	49.552	49.136	1.00	36.37	B
	ATOM	80	CD1	LEU	11B	54.182	50.650	49.916	1.00	33.14	B
	ATOM	81	CD2	LEU	11B	53.922	49.003	48.077	1.00	35.06	B
	ATOM	82	C	LEU	11B	56.811	50.301	46.134	1.00	39.94	B
	ATOM	83	O	LEU	11B	56.005	50.112	45.221	1.00	40.09	B
40	ATOM	84	N	LEU	12B	57.696	51.298	46.128	1.00	38.17	B
	ATOM	85	CA	LEU	12B	57.756	52.257	45.029	1.00	38.73	B
	ATOM	86	CB	LEU	12B	58.928	53.226	45.220	1.00	38.67	B
	ATOM	87	CG	LEU	12B	59.004	54.081	46.482	1.00	38.12	B
	ATOM	88	CD1	LEU	12B	60.246	54.945	46.396	1.00	37.44	B
45	ATOM	89	CD2	LEU	12B	57.760	54.948	46.613	1.00	37.38	B
	ATOM	90	C	LEU	12B	57.892	51.588	43.667	1.00	38.29	B
	ATOM	91	O	LEU	12B	58.706	50.682	43.502	1.00	38.83	B
	ATOM	92	N	GLY	13B	57.101	52.049	42.698	1.00	36.39	B
	ATOM	93	CA	GLY	13B	57.165	51.494	41.355	1.00	35.38	B
50	ATOM	94	C	GLY	13B	55.812	51.236	40.717	1.00	35.83	B
	ATOM	95	O	GLY	13B	54.797	51.808	41.116	1.00	37.17	B
	ATOM	96	N	THR	14B	55.788	50.368	39.716	1.00	34.33	B
	ATOM	97	CA	THR	14B	54.543	50.057	39.039	1.00	33.68	B
	ATOM	98	CB	THR	14B	54.726	50.128	37.521	1.00	34.49	B
55	ATOM	99	OG1	THR	14B	55.138	51.453	37.163	1.00	34.36	B
	ATOM	100	CG2	THR	14B	53.429	49.798	36.810	1.00	32.57	B
	ATOM	101	C	THR	14B	54.037	48.680	39.435	1.00	34.72	B
	ATOM	102	O	THR	14B	54.759	47.694	39.342	1.00	35.21	B
	ATOM	103	N	TRP	15B	52.791	48.622	39.887	1.00	35.31	B

	ATOM	104	CA	TRP	15B	52.194	47.368	40.310	1.00	35.06	B
	ATOM	105	CB	TRP	15B	51.616	47.488	41.717	1.00	35.40	B
	ATOM	106	CG	TRP	15B	52.630	47.524	42.802	1.00	37.21	B
	ATOM	107	CD2	TRP	15B	53.080	46.411	43.579	1.00	36.45	B
5	ATOM	108	CE2	TRP	15B	54.011	46.908	44.518	1.00	37.08	B
	ATOM	109	CE3	TRP	15B	52.789	45.037	43.572	1.00	36.02	B
	ATOM	110	CD1	TRP	15B	53.291	48.619	43.276	1.00	36.82	B
	ATOM	111	NE1	TRP	15B	54.121	48.259	44.312	1.00	36.15	B
	ATOM	112	CZ2	TRP	15B	54.654	46.078	45.445	1.00	36.58	B
10	ATOM	113	CZ3	TRP	15B	53.424	44.216	44.488	1.00	34.10	B
	ATOM	114	CH2	TRP	15B	54.348	44.740	45.414	1.00	35.53	B
	ATOM	115	C	TRP	15B	51.082	46.926	39.387	1.00	35.31	B
	ATOM	116	O	TRP	15B	50.308	47.737	38.899	1.00	34.66	B
	ATOM	117	N	VAL	16B	51.004	45.620	39.172	1.00	36.25	B
15	ATOM	118	CA	VAL	16B	49.980	45.037	38.332	1.00	35.81	B
	ATOM	119	CB	VAL	16B	50.581	44.221	37.193	1.00	35.33	B
	ATOM	120	CG1	VAL	16B	49.464	43.563	36.384	1.00	32.74	B
	ATOM	121	CG2	VAL	16B	51.427	45.125	36.325	1.00	31.97	B
	ATOM	122	C	VAL	16B	49.126	44.132	39.185	1.00	36.67	B
20	ATOM	123	O	VAL	16B	49.575	43.096	39.679	1.00	37.65	B
	ATOM	124	N	PHE	17B	47.885	44.511	39.297	1.00	37.76	B
	ATOM	125	CA	PHE	17B	46.983	43.757	40.165	1.00	40.71	B
	ATOM	126	CB	PHE	17B	46.198	44.727	41.048	1.00	39.84	B
	ATOM	127	CG	PHE	17B	47.068	45.421	42.095	1.00	42.30	B
25	ATOM	128	CD1	PHE	17B	46.878	46.777	42.378	1.00	42.09	B
	ATOM	129	CD2	PHE	17B	48.055	44.701	42.770	1.00	42.15	B
	ATOM	130	CE1	PHE	17B	47.671	47.408	43.343	1.00	41.86	B
	ATOM	131	CE2	PHE	17B	48.847	45.333	43.736	1.00	41.37	B
	ATOM	132	CZ	PHE	17B	48.655	46.686	44.023	1.00	40.51	B
30	ATOM	133	C	PHE	17B	45.980	42.928	39.339	1.00	43.12	B
	ATOM	134	O	PHE	17B	45.339	43.438	38.408	1.00	43.47	B
	ATOM	135	N	GLN	18B	45.883	41.659	39.716	1.00	42.66	B
	ATOM	136	CA	GLN	18B	44.943	40.720	39.102	1.00	45.15	B
	ATOM	137	CB	GLN	18B	45.634	39.384	38.900	1.00	47.17	B
35	ATOM	138	CG	GLN	18B	46.080	39.577	37.539	1.00	51.58	B
	ATOM	139	CD	GLN	18B	47.099	38.763	36.840	1.00	55.98	B
	ATOM	140	OE1	GLN	18B	47.488	39.232	35.776	1.00	56.73	B
	ATOM	141	NE2	GLN	18B	47.549	37.614	37.300	1.00	56.66	B
	ATOM	142	C	GLN	18B	43.758	40.675	39.987	1.00	45.57	B
40	ATOM	143	O	GLN	18B	43.879	40.394	41.163	1.00	45.74	B
	ATOM	144	N	VAL	19B	42.601	40.970	39.418	1.00	44.67	B
	ATOM	145	CA	VAL	19B	41.373	41.027	40.225	1.00	44.05	B
	ATOM	146	CB	VAL	19B	40.739	42.396	40.064	1.00	43.34	B
	ATOM	147	CG1	VAL	19B	39.688	42.673	41.141	1.00	42.24	B
45	ATOM	148	CG2	VAL	19B	41.783	43.520	40.152	1.00	40.01	B
	ATOM	149	C	VAL	19B	40.355	39.947	39.836	1.00	46.41	B
	ATOM	150	O	VAL	19B	39.979	39.791	38.674	1.00	47.83	B
	ATOM	151	N	GLY	20B	39.866	39.281	40.896	1.00	46.10	B
	ATOM	152	CA	GLY	20B	38.873	38.213	40.731	1.00	47.27	B
50	ATOM	153	C	GLY	20B	37.466	38.804	40.639	1.00	48.99	B
	ATOM	154	O	GLY	20B	37.296	40.034	40.650	1.00	49.37	B
	ATOM	155	N	PRO	21B	36.424	37.960	40.499	1.00	49.15	B
	ATOM	156	CD	PRO	21B	36.595	36.507	40.412	1.00	49.41	B
	ATOM	157	CA	PRO	21B	35.049	38.434	40.435	1.00	49.49	B
55	ATOM	158	CB	PRO	21B	34.247	37.165	40.168	1.00	50.24	B
	ATOM	159	CG	PRO	21B	35.225	36.002	40.105	1.00	50.42	B
	ATOM	160	C	PRO	21B	34.637	39.162	41.727	1.00	49.09	B
	ATOM	161	O	PRO	21B	35.347	39.095	42.752	1.00	49.95	B
	ATOM	162	N	ARG	22B	33.537	39.815	41.609	1.00	47.61	B

	ATOM	163	CA	ARG	22B	32.880	40.606	42.638	1.00	47.59	B
	ATOM	164	CB	ARG	22B	31.824	41.325	41.961	1.00	47.80	B
	ATOM	165	CG	ARG	22B	31.216	42.374	42.785	1.00	51.80	B
	ATOM	166	CD	ARG	22B	29.807	42.040	43.201	1.00	54.28	B
5	ATOM	167	NE	ARG	22B	29.395	42.832	44.341	1.00	56.17	B
	ATOM	168	CZ	ARG	22B	28.375	42.543	45.127	1.00	55.95	B
	ATOM	169	NH1	ARG	22B	27.639	41.438	44.922	1.00	55.63	B
	ATOM	170	NH2	ARG	22B	28.007	43.326	46.141	1.00	57.96	B
	ATOM	171	C	ARG	22B	32.161	39.781	43.661	1.00	47.10	B
10	ATOM	172	O	ARG	22B	31.589	38.768	43.316	1.00	48.31	B
	ATOM	173	N	HIS	23B	32.166	40.230	44.905	1.00	45.90	B
	ATOM	174	CA	HIS	23B	31.437	39.520	45.980	1.00	45.89	B
	ATOM	175	CB	HIS	23B	32.319	38.487	46.665	1.00	46.36	B
	ATOM	176	CG	HIS	23B	32.699	37.309	45.776	1.00	46.84	B
15	ATOM	177	CD2	HIS	23B	33.900	36.892	45.311	1.00	45.78	B
	ATOM	178	ND1	HIS	23B	31.752	36.414	45.280	1.00	47.59	B
	ATOM	179	CE1	HIS	23B	32.387	35.507	44.556	1.00	47.94	B
	ATOM	180	NE2	HIS	23B	33.669	35.778	44.565	1.00	46.05	B
	ATOM	181	C	HIS	23B	30.969	40.517	47.032	1.00	46.01	B
20	ATOM	182	O	HIS	23B	31.643	41.521	47.291	1.00	44.99	B
	ATOM	183	N	PRO	24B	29.818	40.266	47.680	1.00	46.15	B
	ATOM	184	CD	PRO	24B	28.824	39.206	47.446	1.00	44.85	B
	ATOM	185	CA	PRO	24B	29.353	41.205	48.711	1.00	45.28	B
	ATOM	186	CB	PRO	24B	27.986	40.645	49.112	1.00	45.43	B
25	ATOM	187	CG	PRO	24B	27.544	39.882	47.898	1.00	46.89	B
	ATOM	188	C	PRO	24B	30.313	41.237	49.893	1.00	44.14	B
	ATOM	189	O	PRO	24B	31.289	40.493	49.937	1.00	43.79	B
	ATOM	190	N	ARG	25B	30.022	42.105	50.852	1.00	45.31	B
	ATOM	191	CA	ARG	25B	30.840	42.232	52.048	1.00	46.33	B
30	ATOM	192	CB	ARG	25B	30.401	43.461	52.841	1.00	42.76	B
	ATOM	193	CG	ARG	25B	31.301	43.821	54.005	1.00	42.59	B
	ATOM	194	CD	ARG	25B	30.935	45.203	54.532	1.00	41.63	B
	ATOM	195	NE	ARG	25B	29.613	45.230	55.150	1.00	39.85	B
	ATOM	196	CZ	ARG	25B	29.386	45.003	56.441	1.00	39.83	B
35	ATOM	197	NH1	ARG	25B	30.393	44.732	57.258	1.00	38.73	B
	ATOM	198	NH2	ARG	25B	28.152	45.058	56.921	1.00	38.30	B
	ATOM	199	C	ARG	25B	30.709	40.974	52.915	1.00	48.99	B
	ATOM	200	O	ARG	25B	31.703	40.441	53.405	1.00	49.50	B
	ATOM	201	N	SER	26B	29.482	40.490	53.077	1.00	51.32	B
40	ATOM	202	CA	SER	26B	29.213	39.306	53.892	1.00	55.29	B
	ATOM	203	CB	SER	26B	27.704	39.189	54.160	1.00	55.94	B
	ATOM	204	OG	SER	26B	27.174	40.427	54.619	1.00	60.72	B
	ATOM	205	C	SER	26B	29.697	37.996	53.272	1.00	55.87	B
	ATOM	206	O	SER	26B	29.877	37.006	53.976	1.00	55.71	B
45	ATOM	207	N	HIS	27B	29.920	37.987	51.961	1.00	58.03	B
	ATOM	208	CA	HIS	27B	30.339	36.760	51.280	1.00	59.69	B
	ATOM	209	CB	HIS	27B	29.335	36.436	50.164	1.00	63.53	B
	ATOM	210	CG	HIS	27B	28.106	35.723	50.638	1.00	68.08	B
	ATOM	211	CD2	HIS	27B	26.819	36.137	50.747	1.00	69.51	B
50	ATOM	212	ND1	HIS	27B	28.121	34.400	51.035	1.00	70.07	B
	ATOM	213	CE1	HIS	27B	26.894	34.027	51.363	1.00	71.29	B
	ATOM	214	NE2	HIS	27B	26.085	35.062	51.197	1.00	71.73	B
	ATOM	215	C	HIS	27B	31.751	36.712	50.690	1.00	57.95	B
	ATOM	216	O	HIS	27B	32.041	35.833	49.868	1.00	59.66	B
55	ATOM	217	N	ILE	28B	32.632	37.619	51.103	1.00	53.95	B
	ATOM	218	CA	ILE	28B	33.983	37.649	50.556	1.00	49.75	B
	ATOM	219	CB	ILE	28B	34.470	39.128	50.397	1.00	47.70	B
	ATOM	220	CG2	ILE	28B	34.773	39.724	51.752	1.00	46.96	B
	ATOM	221	CG1	ILE	28B	35.712	39.200	49.505	1.00	46.12	B

	ATOM	222	CD	ILE	28B	35.471	38.738	48.070	1.00	45.53	B
	ATOM	223	C	ILE	28B	34.979	36.850	51.401	1.00	49.28	B
	ATOM	224	O	ILE	28B	34.988	36.938	52.631	1.00	48.52	B
	ATOM	225	N	ASN	29B	35.803	36.054	50.728	1.00	48.31	B
5	ATOM	226	CA	ASN	29B	36.825	35.245	51.389	1.00	48.97	B
	ATOM	227	CB	ASN	29B	36.327	33.816	51.656	1.00	50.69	B
	ATOM	228	CG	ASN	29B	37.333	32.988	52.458	1.00	51.19	B
	ATOM	229	OD1	ASN	29B	38.505	32.885	52.083	1.00	52.60	B
	ATOM	230	ND2	ASN	29B	36.880	32.396	53.559	1.00	50.94	B
10	ATOM	231	C	ASN	29B	38.005	35.200	50.434	1.00	47.65	B
	ATOM	232	O	ASN	29B	37.909	34.621	49.351	1.00	47.08	B
	ATOM	233	N	CYS	30B	39.117	35.804	50.837	1.00	47.41	B
	ATOM	234	CA	CYS	30B	40.288	35.865	49.972	1.00	47.83	B
	ATOM	235	C	CYS	30B	41.466	34.973	50.336	1.00	48.51	B
15	ATOM	236	O	CYS	30B	42.624	35.335	50.108	1.00	46.69	B
	ATOM	237	CB	CYS	30B	40.761	37.315	49.850	1.00	44.81	B
	ATOM	238	SG	CYS	30B	39.527	38.404	49.071	1.00	43.71	B
	ATOM	239	N	SER	31B	41.178	33.806	50.899	1.00	51.93	B
	ATOM	240	CA	SER	31B	42.249	32.872	51.242	1.00	54.65	B
20	ATOM	241	CB	SER	31B	41.686	31.664	51.983	1.00	54.29	B
	ATOM	242	OG	SER	31B	40.701	31.030	51.186	1.00	56.06	B
	ATOM	243	C	SER	31B	42.858	32.418	49.915	1.00	55.61	B
	ATOM	244	O	SER	31B	44.066	32.173	49.818	1.00	55.99	B
	ATOM	245	N	VAL	32B	42.015	32.332	48.886	1.00	55.53	B
25	ATOM	246	CA	VAL	32B	42.478	31.905	47.572	1.00	55.45	B
	ATOM	247	CB	VAL	32B	42.040	30.463	47.281	1.00	56.70	B
	ATOM	248	CG1	VAL	32B	42.821	29.921	46.078	1.00	57.70	B
	ATOM	249	CG2	VAL	32B	42.255	29.597	48.520	1.00	58.90	B
	ATOM	250	C	VAL	32B	41.982	32.775	46.419	1.00	54.83	B
30	ATOM	251	O	VAL	32B	40.815	33.193	46.382	1.00	54.07	B
	ATOM	252	N	MET	33B	42.883	33.033	45.476	1.00	53.57	B
	ATOM	253	CA	MET	33B	42.562	33.822	44.298	1.00	52.48	B
	ATOM	254	CB	MET	33B	43.835	34.183	43.533	1.00	51.56	B
	ATOM	255	CG	MET	33B	44.219	35.632	43.625	1.00	51.27	B
35	ATOM	256	SD	MET	33B	42.845	36.742	43.313	1.00	50.70	B
	ATOM	257	CE	MET	33B	42.956	36.959	41.524	1.00	50.26	B
	ATOM	258	C	MET	33B	41.670	33.006	43.378	1.00	53.39	B
	ATOM	259	O	MET	33B	41.815	31.783	43.289	1.00	53.27	B
	ATOM	260	N	GLU	34B	40.749	33.689	42.706	1.00	53.53	B
40	ATOM	261	CA	GLU	34B	39.851	33.057	41.747	1.00	53.79	B
	ATOM	262	CB	GLU	34B	38.428	33.601	41.908	1.00	56.21	B
	ATOM	263	CG	GLU	34B	37.749	33.252	43.211	1.00	57.38	B
	ATOM	264	CD	GLU	34B	36.388	33.919	43.339	1.00	60.13	B
	ATOM	265	OE1	GLU	34B	36.331	35.063	43.865	1.00	60.67	B
45	ATOM	266	OE2	GLU	34B	35.379	33.303	42.900	1.00	58.46	B
	ATOM	267	C	GLU	34B	40.382	33.432	40.358	1.00	53.30	B
	ATOM	268	O	GLU	34B	41.346	34.196	40.241	1.00	50.62	B
	ATOM	269	N	PRO	35B	39.775	32.888	39.287	1.00	54.04	B
	ATOM	270	CD	PRO	35B	38.771	31.805	39.222	1.00	54.01	B
50	ATOM	271	CA	PRO	35B	40.262	33.237	37.943	1.00	53.72	B
	ATOM	272	CB	PRO	35B	39.287	32.505	37.016	1.00	53.37	B
	ATOM	273	CG	PRO	35B	38.977	31.251	37.800	1.00	53.39	B
	ATOM	274	C	PRO	35B	40.236	34.750	37.743	1.00	52.92	B
	ATOM	275	O	PRO	35B	39.262	35.420	38.092	1.00	52.49	B
55	ATOM	276	N	THR	36B	41.320	35.279	37.192	1.00	52.82	B
	ATOM	277	CA	THR	36B	41.450	36.708	36.954	1.00	52.88	B
	ATOM	278	CB	THR	36B	42.838	37.032	36.406	1.00	52.84	B
	ATOM	279	OG1	THR	36B	43.825	36.603	37.354	1.00	53.43	B
	ATOM	280	CG2	THR	36B	42.979	38.534	36.132	1.00	51.27	B

	ATOM	281	C	THR	36B	40.414	37.210	35.963	1.00	54.29	B
	ATOM	282	O	THR	36B	40.178	36.581	34.925	1.00	52.15	B
	ATOM	283	N	GLU	37B	39.801	38.355	36.304	1.00	55.22	B
	ATOM	284	CA	GLU	37B	38.772	38.954	35.445	1.00	56.98	B
5	ATOM	285	CB	GLU	37B	37.465	39.091	36.195	1.00	58.29	B
	ATOM	286	CG	GLU	37B	36.738	37.770	36.374	1.00	61.75	B
	ATOM	287	CD	GLU	37B	35.258	37.970	36.600	1.00	63.86	B
	ATOM	288	OE1	GLU	37B	34.510	36.952	36.777	1.00	64.28	B
	ATOM	289	OE2	GLU	37B	34.788	39.160	36.609	1.00	62.16	B
10	ATOM	290	C	GLU	37B	39.197	40.336	34.962	1.00	57.10	B
	ATOM	291	O	GLU	37B	38.874	40.746	33.844	1.00	57.55	B
	ATOM	292	N	GLU	38B	39.899	41.062	35.804	1.00	57.04	B
	ATOM	293	CA	GLU	38B	40.398	42.357	35.396	1.00	55.60	B
	ATOM	294	CB	GLU	38B	39.734	43.572	35.957	1.00	58.17	B
15	ATOM	295	CG	GLU	38B	38.235	43.919	36.091	1.00	61.04	B
	ATOM	296	CD	GLU	38B	37.436	44.210	34.829	1.00	63.70	B
	ATOM	297	OE1	GLU	38B	36.227	43.812	34.801	1.00	63.69	B
	ATOM	298	OE2	GLU	38B	37.955	44.833	33.832	1.00	63.58	B
	ATOM	299	C	GLU	38B	41.892	42.476	35.820	1.00	54.27	B
20	ATOM	300	O	GLU	38B	42.374	41.767	36.718	1.00	54.33	B
	ATOM	301	N	LYS	39B	42.587	43.371	35.159	1.00	51.32	B
	ATOM	302	CA	LYS	39B	44.004	43.607	35.401	1.00	49.38	B
	ATOM	303	CB	LYS	39B	44.797	43.051	34.203	1.00	50.48	B
	ATOM	304	CG	LYS	39B	46.258	42.729	34.499	1.00	54.07	B
25	ATOM	305	CD	LYS	39B	46.826	41.633	33.576	1.00	55.90	B
	ATOM	306	CE	LYS	39B	48.333	41.419	33.797	1.00	59.31	B
	ATOM	307	NZ	LYS	39B	48.894	40.239	33.093	1.00	59.16	B
	ATOM	308	C	LYS	39B	44.210	45.109	35.545	1.00	47.69	B
	ATOM	309	O	LYS	39B	44.040	45.862	34.577	1.00	48.28	B
30	ATOM	310	N	VAL	40B	44.474	45.560	36.775	1.00	44.36	B
	ATOM	311	CA	VAL	40B	44.637	46.982	37.071	1.00	40.79	B
	ATOM	312	CB	VAL	40B	43.759	47.374	38.283	1.00	40.02	B
	ATOM	313	CG1	VAL	40B	43.981	48.831	38.661	1.00	36.38	B
	ATOM	314	CG2	VAL	40B	42.291	47.128	37.947	1.00	38.63	B
35	ATOM	315	C	VAL	40B	46.086	47.390	37.347	1.00	41.51	B
	ATOM	316	O	VAL	40B	46.814	46.682	38.052	1.00	43.93	B
	ATOM	317	N	VAL	41B	46.497	48.528	36.784	1.00	39.22	B
	ATOM	318	CA	VAL	41B	47.852	49.043	36.974	1.00	36.69	B
	ATOM	319	CB	VAL	41B	48.523	49.380	35.640	1.00	36.32	B
40	ATOM	320	CG1	VAL	41B	49.953	49.835	35.885	1.00	34.53	B
	ATOM	321	CG2	VAL	41B	48.498	48.173	34.727	1.00	37.69	B
	ATOM	322	C	VAL	41B	47.856	50.306	37.831	1.00	37.00	B
	ATOM	323	O	VAL	41B	47.123	51.257	37.561	1.00	36.96	B
	ATOM	324	N	ILE	42B	48.690	50.310	38.862	1.00	35.86	B
45	ATOM	325	CA	ILE	42B	48.788	51.454	39.754	1.00	34.78	B
	ATOM	326	CB	ILE	42B	48.086	51.163	41.104	1.00	34.00	B
	ATOM	327	CG2	ILE	42B	48.293	52.325	42.071	1.00	30.30	B
	ATOM	328	CG1	ILE	42B	46.594	50.905	40.861	1.00	33.29	B
	ATOM	329	CD	ILE	42B	45.791	50.657	42.116	1.00	34.69	B
50	ATOM	330	C	ILE	42B	50.248	51.795	40.010	1.00	35.61	B
	ATOM	331	O	ILE	42B	51.075	50.902	40.193	1.00	36.59	B
	ATOM	332	N	HIS	43B	50.558	53.088	40.013	1.00	34.04	B
	ATOM	333	CA	HIS	43B	51.913	53.559	40.251	1.00	34.68	B
	ATOM	334	CB	HIS	43B	52.276	54.642	39.232	1.00	35.70	B
55	ATOM	335	CG	HIS	43B	52.194	54.190	37.807	1.00	38.93	B
	ATOM	336	CD2	HIS	43B	51.133	54.038	36.981	1.00	38.22	B
	ATOM	337	ND1	HIS	43B	53.306	53.831	37.074	1.00	39.36	B
	ATOM	338	CE1	HIS	43B	52.933	53.478	35.857	1.00	37.96	B
	ATOM	339	NE2	HIS	43B	51.619	53.594	35.775	1.00	40.72	B

	ATOM	340	C	HIS	43B	52.003	54.149	41.658	1.00	34.97	B
	ATOM	341	O	HIS	43B	51.082	54.828	42.102	1.00	36.02	B
	ATOM	342	N	LEU	44B	53.110	53.896	42.353	1.00	33.80	B
	ATOM	343	CA	LEU	44B	53.307	54.438	43.701	1.00	35.36	B
5	ATOM	344	CB	LEU	44B	53.356	53.305	44.727	1.00	32.69	B
	ATOM	345	CG	LEU	44B	52.150	52.367	44.754	1.00	33.36	B
	ATOM	346	CD1	LEU	44B	52.352	51.311	45.838	1.00	30.07	B
	ATOM	347	CD2	LEU	44B	50.879	53.169	44.996	1.00	29.97	B
	ATOM	348	C	LEU	44B	54.617	55.229	43.736	1.00	35.65	B
10	ATOM	349	O	LEU	44B	55.680	54.678	43.459	1.00	37.08	B
	ATOM	350	N	LYS	45B	54.232	56.833	44.264	1.00	37.12	B
	ATOM	351	CA	LYS	45B	55.597	57.343	44.077	1.00	38.23	B
	ATOM	352	CB	LYS	45B	55.622	58.358	42.929	1.00	40.53	B
	ATOM	353	CG	LYS	45B	55.921	57.717	41.565	1.00	42.38	B
15	ATOM	354	CD	LYS	45B	56.929	56.565	41.650	1.00	49.18	B
	ATOM	355	CE	LYS	45B	57.306	55.992	40.279	1.00	50.80	B
	ATOM	356	NZ	LYS	45B	58.096	56.925	39.462	1.00	53.90	B
	ATOM	357	C	LYS	45B	56.095	58.019	45.374	1.00	39.78	B
	ATOM	358	O	LYS	45B	55.301	58.308	46.281	1.00	40.57	B
20	ATOM	359	N	LYS	46B	57.403	58.223	45.365	1.00	41.85	B
	ATOM	360	CA	LYS	46B	58.209	58.837	46.459	1.00	41.90	B
	ATOM	361	CB	LYS	46B	58.578	60.275	46.115	1.00	44.97	B
	ATOM	362	CG	LYS	46B	60.033	60.392	45.635	1.00	44.25	B
	ATOM	363	CD	LYS	46B	60.994	60.878	46.724	1.00	44.04	B
25	ATOM	364	CE	LYS	46B	61.677	62.196	46.361	1.00	42.84	B
	ATOM	365	NZ	LYS	46B	60.720	63.273	46.072	1.00	44.73	B
	ATOM	366	C	LYS	46B	57.485	58.827	47.834	1.00	43.40	B
	ATOM	367	O	LYS	46B	57.517	57.840	48.572	1.00	39.59	B
	ATOM	368	N	LEU	47B	56.837	59.921	48.198	1.00	44.56	B
30	ATOM	369	CA	LEU	47B	56.156	59.998	49.519	1.00	40.21	B
	ATOM	370	CB	LEU	47B	56.036	61.451	49.974	1.00	38.90	B
	ATOM	371	CG	LEU	47B	57.341	61.970	50.588	1.00	38.34	B
	ATOM	372	CD1	LEU	47B	57.121	62.912	51.772	1.00	39.88	B
	ATOM	373	CD2	LEU	47B	58.236	60.845	51.116	1.00	37.27	B
35	ATOM	374	C	LEU	47B	54.760	59.380	49.462	1.00	39.50	B
	ATOM	375	O	LEU	47B	54.419	58.512	50.289	1.00	40.75	B
	ATOM	376	N	ASP	48B	53.739	59.510	49.283	1.00	35.83	B
	ATOM	377	CA	ASP	48B	52.448	58.834	49.388	1.00	33.58	B
	ATOM	378	CB	ASP	48B	51.767	59.249	50.702	1.00	33.68	B
40	ATOM	379	CG	ASP	48B	51.177	60.644	50.652	1.00	35.99	B
	ATOM	380	OD1	ASP	48B	51.712	61.509	49.935	1.00	38.09	B
	ATOM	381	OD2	ASP	48B	50.173	60.886	51.350	1.00	39.54	B
	ATOM	382	C	ASP	48B	51.475	58.975	48.218	1.00	33.19	B
	ATOM	383	O	ASP	48B	50.267	58.874	48.397	1.00	32.13	B
45	ATOM	384	N	THR	49B	52.000	59.176	47.015	1.00	34.69	B
	ATOM	385	CA	THR	49B	51.154	59.314	45.841	1.00	32.42	B
	ATOM	386	CB	THR	49B	51.748	60.322	44.840	1.00	33.29	B
	ATOM	387	OG1	THR	49B	51.791	61.622	45.430	1.00	32.59	B
	ATOM	388	CG2	THR	49B	50.908	60.371	43.576	1.00	32.86	B
50	ATOM	389	C	THR	49B	50.898	58.009	45.082	1.00	33.06	B
	ATOM	390	O	THR	49B	51.810	57.247	44.789	1.00	31.74	B
	ATOM	391	N	ALB	50B	49.633	57.771	44.761	1.00	34.39	B
	ATOM	392	CA	ALB	50B	49.226	56.604	43.994	1.00	33.65	B
	ATOM	393	CB	ALB	50B	48.324	55.707	44.832	1.00	34.11	B
55	ATOM	394	C	ALB	50B	48.453	57.163	42.804	1.00	34.28	B
	ATOM	395	O	ALB	50B	47.684	58.103	42.956	1.00	34.75	B
	ATOM	396	N	TYR	51B	48.660	56.611	41.619	1.00	34.63	B
	ATOM	397	CA	TYR	51B	47.931	57.097	40.455	1.00	35.49	B
	ATOM	398	CB	TYR	51B	48.584	58.354	39.870	1.00	32.75	B

	ATOM	399	CG	TYR	51B	50.038	58.218	39.456	1.00	34.70	B
	ATOM	400	CD1	TYR	51B	51.066	58.399	40.382	1.00	34.16	B
	ATOM	401	CE1	TYR	51B	52.400	58.341	39.997	1.00	35.08	B
	ATOM	402	CD2	TYR	51B	50.386	57.961	38.124	1.00	34.32	B
5	ATOM	403	CE2	TYR	51B	51.719	57.897	37.725	1.00	33.74	B
	ATOM	404	CZ	TYR	51B	52.722	58.091	38.668	1.00	36.72	B
	ATOM	405	OH	TYR	51B	54.048	58.047	38.291	1.00	36.53	B
	ATOM	406	C	TYR	51B	47.799	56.048	39.374	1.00	35.70	B
	ATOM	407	O	TYR	51B	48.722	55.262	39.143	1.00	36.85	B
10	ATOM	408	N	ASP	52B	46.638	56.028	38.726	1.00	35.40	B
	ATOM	409	CA	ASP	52B	46.391	55.083	37.647	1.00	35.51	B
	ATOM	410	CB	ASP	52B	44.889	54.855	37.442	1.00	34.31	B
	ATOM	411	CG	ASP	52B	44.134	56.133	37.102	1.00	34.28	B
	ATOM	412	OD1	ASP	52B	44.745	57.084	36.571	1.00	36.05	B
15	ATOM	413	OD2	ASP	52B	42.914	56.176	37.355	1.00	33.44	B
	ATOM	414	C	ASP	52B	47.010	55.665	36.389	1.00	35.88	B
	ATOM	415	O	ASP	52B	47.838	56.566	36.468	1.00	37.26	B
	ATOM	416	N	GLU	53B	46.606	55.171	35.227	1.00	39.55	B
	ATOM	417	CA	GLU	53B	47.172	55.675	33.982	1.00	41.98	B
20	ATOM	418	CB	GLU	53B	47.458	54.523	33.030	1.00	44.69	B
	ATOM	419	CG	GLU	53B	48.938	54.213	32.950	1.00	50.39	B
	ATOM	420	CD	GLU	53B	49.211	52.767	33.221	1.00	54.04	B
	ATOM	421	OE1	GLU	53B	50.406	52.394	33.310	1.00	55.71	B
	ATOM	422	OE2	GLU	53B	48.217	52.006	33.347	1.00	55.68	B
25	ATOM	423	C	GLU	53B	46.364	56.726	33.253	1.00	40.50	B
	ATOM	424	O	GLU	53B	46.829	57.279	32.263	1.00	40.73	B
	ATOM	425	N	VAL	54B	45.167	57.014	33.742	1.00	39.75	B
	ATOM	426	CA	VAL	54B	44.326	58.003	33.091	1.00	39.48	B
	ATOM	427	CB	VAL	54B	42.925	57.430	32.828	1.00	40.36	B
30	ATOM	428	CG1	VAL	54B	43.026	56.299	31.793	1.00	38.06	B
	ATOM	429	CG2	VAL	54B	42.317	56.905	34.121	1.00	38.84	B
	ATOM	430	C	VAL	54B	44.212	59.318	33.847	1.00	40.26	B
	ATOM	431	O	VAL	54B	43.138	59.907	33.915	1.00	41.88	B
	ATOM	432	N	GLY	55B	45.325	59.767	34.420	1.00	41.13	B
35	ATOM	433	CA	GLY	55B	45.344	61.025	35.146	1.00	40.80	B
	ATOM	434	C	GLY	55B	44.724	61.119	36.534	1.00	40.97	B
	ATOM	435	O	GLY	55B	44.572	62.229	37.046	1.00	41.71	B
	ATOM	436	N	ASN	56B	44.372	59.996	37.155	1.00	39.30	B
	ATOM	437	CA	ASN	56B	43.778	60.043	38.492	1.00	38.72	B
40	ATOM	438	CB	ASN	56B	42.663	59.007	38.605	1.00	38.26	B
	ATOM	439	CG	ASN	56B	41.540	59.253	37.618	1.00	37.24	B
	ATOM	440	OD1	ASN	56B	40.907	60.305	37.634	1.00	37.37	B
	ATOM	441	ND2	ASN	56B	41.287	58.282	36.753	1.00	36.12	B
	ATOM	442	C	ASN	56B	44.802	59.827	39.615	1.00	39.16	B
45	ATOM	443	O	ASN	56B	45.622	58.907	39.552	1.00	40.18	B
	ATOM	444	N	SER	57B	44.733	60.680	40.639	1.00	37.33	B
	ATOM	445	CA	SER	57B	45.636	60.634	41.793	1.00	36.98	B
	ATOM	446	CB	SER	57B	46.053	62.043	42.228	1.00	38.22	B
	ATOM	447	OG	SER	57B	46.957	62.639	41.330	1.00	45.46	B
50	ATOM	448	C	SER	57B	45.008	59.970	43.003	1.00	35.80	B
	ATOM	449	O	SER	57B	43.790	59.980	43.170	1.00	34.15	B
	ATOM	450	N	GLY	58B	45.869	59.442	43.866	1.00	35.45	B
	ATOM	451	CA	GLY	58B	45.425	58.775	45.074	1.00	33.47	B
	ATOM	452	C	GLY	58B	46.498	58.742	46.148	1.00	34.21	B
55	ATOM	453	O	GLY	58B	47.525	59.423	46.060	1.00	33.05	B
	ATOM	454	N	TYR	59B	46.272	57.913	47.155	1.00	33.15	B
	ATOM	455	CA	TYR	59B	47.189	57.798	48.272	1.00	33.03	B
	ATOM	456	CB	TYR	59B	46.529	58.465	49.477	1.00	38.33	B
	ATOM	457	CG	TYR	59B	46.765	57.782	50.794	1.00	43.85	B

	ATOM	458	CD1	TYR	59B	47.863	58.113	51.590	1.00	48.03	B
	ATOM	459	CE1	TYR	59B	48.097	57.458	52.801	1.00	50.47	B
	ATOM	460	CD2	TYR	59B	45.904	56.782	51.235	1.00	46.11	B
	ATOM	461	CE2	TYR	59B	46.122	56.121	52.434	1.00	49.61	B
5	ATOM	462	CZ	TYR	59B	47.220	56.460	53.218	1.00	51.22	B
	ATOM	463	OH	TYR	59B	47.434	55.804	54.418	1.00	51.39	B
	ATOM	464	C	TYR	59B	47.550	56.347	48.581	1.00	32.66	B
	ATOM	465	O	TYR	59B	46.859	55.422	48.155	1.00	31.29	B
	ATOM	466	N	PHE	60B	48.643	56.156	49.313	1.00	31.38	B
10	ATOM	467	CA	PHE	60B	49.081	54.821	49.713	1.00	32.31	B
	ATOM	468	CB	PHE	60B	49.833	54.129	48.564	1.00	30.22	B
	ATOM	469	CG	PHE	60B	51.290	54.510	48.468	1.00	29.18	B
	ATOM	470	CD1	PHE	60B	52.234	53.947	49.331	1.00	31.18	B
	ATOM	471	CD2	PHE	60B	51.718	55.451	47.534	1.00	27.77	B
15	ATOM	472	CE1	PHE	60B	53.583	54.318	49.265	1.00	31.86	B
	ATOM	473	CE2	PHE	60B	53.059	55.829	47.458	1.00	29.71	B
	ATOM	474	CZ	PHE	60B	53.996	55.264	48.323	1.00	32.51	B
	ATOM	475	C	PHE	60B	49.998	54.934	50.932	1.00	34.26	B
	ATOM	476	O	PHE	60B	50.558	55.997	51.196	1.00	33.77	B
20	ATOM	477	N	THR	61B	50.140	53.844	51.684	1.00	34.13	B
	ATOM	478	CA	THR	61B	51.047	53.837	52.826	1.00	33.73	B
	ATOM	479	CB	THR	61B	50.377	54.300	54.150	1.00	34.96	B
	ATOM	480	OG1	THR	61B	51.370	54.364	55.187	1.00	34.95	B
	ATOM	481	CG2	THR	61B	49.296	53.316	54.593	1.00	32.00	B
25	ATOM	482	C	THR	61B	51.595	52.443	53.071	1.00	33.68	B
	ATOM	483	O	THR	61B	50.915	51.448	52.841	1.00	34.70	B
	ATOM	484	N	LEU	62B	52.843	52.378	53.505	1.00	34.77	B
	ATOM	485	CA	LEU	62B	53.439	51.101	53.859	1.00	35.68	B
	ATOM	486	CB	LEU	62B	54.962	51.238	53.966	1.00	35.08	B
30	ATOM	487	CG	LEU	62B	55.786	50.040	54.444	1.00	34.88	B
	ATOM	488	CD1	LEU	62B	55.730	48.924	53.409	1.00	33.54	B
	ATOM	489	CD2	LEU	62B	57.224	50.475	54.670	1.00	33.50	B
	ATOM	490	C	LEU	62B	52.855	50.795	55.252	1.00	37.05	B
	ATOM	491	O	LEU	62B	52.560	51.714	56.033	1.00	37.53	B
35	ATOM	492	N	ILE	63B	52.655	49.520	55.554	1.00	36.52	B
	ATOM	493	CA	ILE	63B	52.143	49.133	56.863	1.00	36.16	B
	ATOM	494	CB	ILE	63B	50.921	48.223	56.728	1.00	37.06	B
	ATOM	495	CG2	ILE	63B	50.459	47.768	58.108	1.00	35.15	B
	ATOM	496	CG1	ILE	63B	49.817	48.971	55.975	1.00	37.31	B
40	ATOM	497	CD	ILE	63B	48.639	48.106	55.575	1.00	38.29	B
	ATOM	498	C	ILE	63B	53.283	48.380	57.536	1.00	36.09	B
	ATOM	499	O	ILE	63B	53.441	47.179	57.334	1.00	35.38	B
	ATOM	500	N	TYR	64B	54.082	49.104	58.321	1.00	36.69	B
	ATOM	501	CA	TYR	64B	55.252	48.541	59.005	1.00	35.77	B
45	ATOM	502	CB	TYR	64B	54.826	47.543	60.090	1.00	34.91	B
	ATOM	503	CG	TYR	64B	55.967	47.111	60.988	1.00	35.87	B
	ATOM	504	CD1	TYR	64B	56.693	48.048	61.726	1.00	36.49	B
	ATOM	505	CE1	TYR	64B	57.751	47.658	62.547	1.00	37.20	B
	ATOM	506	CD2	TYR	64B	56.330	45.769	61.093	1.00	37.20	B
50	ATOM	507	CE2	TYR	64B	57.383	45.365	61.909	1.00	38.56	B
	ATOM	508	CZ	TYR	64B	58.088	46.315	62.634	1.00	39.87	B
	ATOM	509	OH	TYR	64B	59.115	45.918	63.458	1.00	41.82	B
	ATOM	510	C	TYR	64B	56.169	47.865	57.971	1.00	35.39	B
	ATOM	511	O	TYR	64B	56.832	48.556	57.192	1.00	36.07	B
55	ATOM	512	N	ASN	65B	56.214	46.532	57.963	1.00	33.98	B
	ATOM	513	CA	ASN	65B	57.032	45.795	56.992	1.00	35.01	B
	ATOM	514	CB	ASN	65B	58.331	45.280	57.641	1.00	34.00	B
	ATOM	515	CG	ASN	65B	58.088	44.175	58.673	1.00	33.67	B
	ATOM	516	OD1	ASN	65B	56.964	43.697	58.853	1.00	30.98	B

	ATOM	517	ND2	ASN	65B	59.153	43.764	59.348	1.00	30.42	B
	ATOM	518	C	ASN	65B	56.226	44.612	56.462	1.00	34.65	B
	ATOM	519	O	ASN	65B	56.765	43.706	55.820	1.00	33.16	B
	ATOM	520	N	GLN	66B	54.925	44.658	56.735	1.00	35.63	B
5	ATOM	521	CA	GLN	66B	53.971	43.609	56.393	1.00	34.74	B
	ATOM	522	CB	GLN	66B	52.919	43.554	57.496	1.00	35.48	B
	ATOM	523	CG	GLN	66B	53.506	43.340	58.882	1.00	37.74	B
	ATOM	524	CD	GLN	66B	53.780	41.879	59.164	1.00	39.36	B
	ATOM	525	OE1	GLN	66B	52.852	41.072	59.239	1.00	37.74	B
10	ATOM	526	NE2	GLN	66B	55.055	41.529	59.312	1.00	40.23	B
	ATOM	527	C	GLN	66B	53.267	43.700	55.047	1.00	34.24	B
	ATOM	528	O	GLN	66B	53.161	42.713	54.333	1.00	34.69	B
	ATOM	529	N	GLY	67B	52.758	44.879	54.721	1.00	35.10	B
	ATOM	530	CA	GLY	67B	52.046	45.060	53.471	1.00	33.77	B
15	ATOM	531	C	GLY	67B	51.805	46.529	53.203	1.00	35.01	B
	ATOM	532	O	GLY	67B	52.570	47.382	53.659	1.00	34.04	B
	ATOM	533	N	PHE	68B	50.729	46.835	52.487	1.00	33.97	B
	ATOM	534	CA	PHE	68B	50.430	48.222	52.156	1.00	35.94	B
	ATOM	535	CB	PHE	68B	51.224	48.623	50.916	1.00	36.57	B
20	ATOM	536	CG	PHE	68B	50.885	47.804	49.708	1.00	37.62	B
	ATOM	537	CD1	PHE	68B	51.616	46.665	49.393	1.00	39.82	B
	ATOM	538	CD2	PHE	68B	49.790	48.131	48.914	1.00	40.59	B
	ATOM	539	CE1	PHE	68B	51.264	45.863	48.309	1.00	39.10	B
	ATOM	540	CE2	PHE	68B	49.430	47.331	47.826	1.00	41.25	B
25	ATOM	541	CZ	PHE	68B	50.170	46.198	47.526	1.00	39.41	B
	ATOM	542	C	PHE	68B	48.950	48.444	51.859	1.00	34.86	B
	ATOM	543	O	PHE	68B	48.224	47.501	51.555	1.00	35.84	B
	ATOM	544	N	GLU	69B	48.507	49.693	51.957	1.00	33.32	B
	ATOM	545	CA	GLU	69B	47.130	50.023	51.610	1.00	32.23	B
30	ATOM	546	CB	GLU	69B	46.300	50.460	52.812	1.00	30.52	B
	ATOM	547	CG	GLU	69B	44.850	50.681	52.409	1.00	30.24	B
	ATOM	548	CD	GLU	69B	43.938	51.063	53.555	1.00	33.08	B
	ATOM	549	OE1	GLU	69B	44.118	52.159	54.133	1.00	31.99	B
	ATOM	550	OE2	GLU	69B	43.031	50.263	53.873	1.00	33.81	B
35	ATOM	551	C	GLU	69B	47.128	51.146	50.584	1.00	32.02	B
	ATOM	552	O	GLU	69B	47.846	52.141	50.728	1.00	32.21	B
	ATOM	553	N	ILE	70B	46.326	50.978	49.542	1.00	31.77	B
	ATOM	554	CA	ILE	70B	46.214	51.987	48.497	1.00	31.09	B
	ATOM	555	CB	ILE	70B	46.630	51.442	47.112	1.00	30.01	B
40	ATOM	556	CG2	ILE	70B	46.452	52.532	46.063	1.00	30.54	B
	ATOM	557	CG1	ILE	70B	48.076	50.948	47.132	1.00	29.32	B
	ATOM	558	CD	ILE	70B	48.499	50.274	45.846	1.00	23.21	B
	ATOM	559	C	ILE	70B	44.769	52.450	48.374	1.00	31.52	B
	ATOM	560	O	ILE	70B	43.855	51.630	48.310	1.00	31.06	B
45	ATOM	561	N	VAL	71B	44.563	53.763	48.359	1.00	31.11	B
	ATOM	562	CA	VAL	71B	43.225	54.315	48.195	1.00	32.10	B
	ATOM	563	CB	VAL	71B	42.798	55.172	49.397	1.00	32.27	B
	ATOM	564	CG1	VAL	71B	41.383	55.703	49.170	1.00	32.02	B
	ATOM	565	CG2	VAL	71B	42.843	54.339	50.666	1.00	31.98	B
50	ATOM	566	C	VAL	71B	43.290	55.172	46.937	1.00	32.86	B
	ATOM	567	O	VAL	71B	43.912	56.223	46.921	1.00	33.28	B
	ATOM	568	N	LEU	72B	42.655	54.692	45.879	1.00	33.70	B
	ATOM	569	CA	LEU	72B	42.659	55.365	44.594	1.00	33.37	B
	ATOM	570	CB	LEU	72B	43.834	54.839	43.771	1.00	32.53	B
55	ATOM	571	CG	LEU	72B	44.009	55.322	42.338	1.00	32.64	B
	ATOM	572	CD1	LEU	72B	44.258	56.824	42.331	1.00	31.36	B
	ATOM	573	CD2	LEU	72B	45.174	54.578	41.700	1.00	31.51	B
	ATOM	574	C	LEU	72B	41.346	55.069	43.882	1.00	34.48	B
	ATOM	575	O	LEU	72B	40.841	53.955	43.954	1.00	35.76	B

	ATOM	576	N	ASN	73B	40.798	56.069	43.197	1.00	35.95	B
	ATOM	577	CA	ASN	73B	39.534	55.917	42.479	1.00	34.85	B
	ATOM	578	CB	ASN	73B	39.729	55.053	41.234	1.00	34.75	B
	ATOM	579	CG	ASN	73B	40.628	55.712	40.213	1.00	35.52	B
5	ATOM	580	OD1	ASN	73B	40.465	56.888	39.907	1.00	36.76	B
	ATOM	581	ND2	ASN	73B	41.579	54.958	39.677	1.00	33.15	B
	ATOM	582	C	ASN	73B	38.431	55.330	43.356	1.00	34.88	B
	ATOM	583	O	ASN	73B	37.641	54.497	42.914	1.00	34.38	B
	ATOM	584	N	ASP	74B	38.383	55.789	44.603	1.00	35.59	B
10	ATOM	585	CA	ASP	74B	37.392	55.341	45.573	1.00	34.82	B
	ATOM	586	CB	ASP	74B	35.995	55.778	45.147	1.00	35.59	B
	ATOM	587	CG	ASP	74B	35.736	57.235	45.453	1.00	34.88	B
	ATOM	588	OD1	ASP	74B	36.178	57.679	46.527	1.00	33.21	B
	ATOM	589	OD2	ASP	74B	35.089	57.923	44.638	1.00	36.74	B
15	ATOM	590	C	ASP	74B	37.408	53.852	45.868	1.00	34.33	B
	ATOM	591	O	ASP	74B	36.380	53.248	46.175	1.00	32.04	B
	ATOM	592	N	TYR	75B	38.595	53.269	45.767	1.00	34.42	B
	ATOM	593	CA	TYR	75B	38.786	51.867	46.069	1.00	33.61	B
	ATOM	594	CB	TYR	75B	39.029	51.041	44.804	1.00	33.31	B
20	ATOM	595	CG	TYR	75B	37.751	50.690	44.074	1.00	36.58	B
	ATOM	596	CD1	TYR	75B	37.307	51.456	42.989	1.00	33.13	B
	ATOM	597	CE1	TYR	75B	36.106	51.173	42.351	1.00	35.14	B
	ATOM	598	CD2	TYR	75B	36.956	49.622	44.501	1.00	34.19	B
	ATOM	599	CE2	TYR	75B	35.744	49.330	43.870	1.00	37.25	B
25	ATOM	600	CZ	TYR	75B	35.326	50.112	42.794	1.00	38.32	B
	ATOM	601	OH	TYR	75B	34.124	49.838	42.171	1.00	39.25	B
	ATOM	602	C	TYR	75B	39.976	51.743	46.992	1.00	32.51	B
	ATOM	603	O	TYR	75B	40.984	52.412	46.808	1.00	34.66	B
	ATOM	604	N	LYS	76B	39.837	50.905	48.008	1.00	32.16	B
30	ATOM	605	CA	LYS	76B	40.916	50.668	48.942	1.00	31.29	B
	ATOM	606	CB	LYS	76B	40.410	50.742	50.385	1.00	28.63	B
	ATOM	607	CG	LYS	76B	39.902	52.112	50.787	1.00	26.38	B
	ATOM	608	CD	LYS	76B	39.727	52.214	52.283	1.00	27.45	B
	ATOM	609	CE	LYS	76B	39.302	53.605	52.703	1.00	26.33	B
35	ATOM	610	NZ	LYS	76B	39.447	53.778	54.167	1.00	28.04	B
	ATOM	611	C	LYS	76B	41.473	49.281	48.644	1.00	33.70	B
	ATOM	612	O	LYS	76B	40.725	48.309	48.560	1.00	33.28	B
	ATOM	613	N	TRP	77B	42.784	49.205	48.441	1.00	35.54	B
	ATOM	614	CA	TRP	77B	43.443	47.935	48.168	1.00	36.00	B
40	ATOM	615	CB	TRP	77B	44.309	47.984	46.897	1.00	36.13	B
	ATOM	616	CG	TRP	77B	43.651	48.475	45.640	1.00	37.52	B
	ATOM	617	CD2	TRP	77B	43.402	47.712	44.450	1.00	37.97	B
	ATOM	618	CE2	TRP	77B	42.868	48.601	43.490	1.00	38.05	B
	ATOM	619	CE3	TRP	77B	43.583	46.363	44.102	1.00	39.70	B
45	ATOM	620	CD1	TRP	77B	43.261	49.753	45.365	1.00	34.97	B
	ATOM	621	NE1	TRP	77B	42.796	49.838	44.074	1.00	39.36	B
	ATOM	622	CZ2	TRP	77B	42.509	48.191	42.201	1.00	39.78	B
	ATOM	623	CZ3	TRP	77B	43.230	45.949	42.821	1.00	41.32	B
	ATOM	624	CH2	TRP	77B	42.697	46.865	41.881	1.00	43.28	B
50	ATOM	625	C	TRP	77B	44.374	47.631	49.327	1.00	37.11	B
	ATOM	626	O	TRP	77B	45.104	48.506	49.807	1.00	35.79	B
	ATOM	627	N	PHE	78B	44.346	46.385	49.769	1.00	37.08	B
	ATOM	628	CA	PHE	78B	45.221	45.956	50.834	1.00	38.94	B
	ATOM	629	CB	PHE	78B	44.536	46.053	52.194	1.00	38.02	B
55	ATOM	630	CG	PHE	78B	45.238	45.258	53.253	1.00	38.34	B
	ATOM	631	CD1	PHE	78B	46.548	45.562	53.604	1.00	37.23	B
	ATOM	632	CD2	PHE	78B	44.633	44.144	53.822	1.00	39.26	B
	ATOM	633	CE1	PHE	78B	47.249	44.771	54.497	1.00	37.38	B
	ATOM	634	CE2	PHE	78B	45.326	43.340	54.720	1.00	40.13	B

	ATOM	635	CZ	PHE	78B	46.639	43.653	55.057	1.00	39.92	B
	ATOM	636	C	PHE	78B	45.681	44.512	50.616	1.00	40.06	B
	ATOM	637	O	PHE	78B	44.915	43.654	50.157	1.00	39.19	B
	ATOM	638	N	ALB	79B	46.936	44.249	50.967	1.00	39.24	B
5	ATOM	639	CA	ALB	79B	47.499	42.916	50.841	1.00	38.82	B
	ATOM	640	CB	ALB	79B	47.758	42.579	49.356	1.00	36.80	B
	ATOM	641	C	ALB	79B	48.799	42.846	51.615	1.00	37.17	B
	ATOM	642	O	ALB	79B	49.497	43.848	51.739	1.00	35.18	B
	ATOM	643	N	PHE	80B	49.100	41.666	52.156	1.00	38.42	B
10	ATOM	644	CA	PHE	80B	50.356	41.436	52.863	1.00	36.14	B
	ATOM	645	CB	PHE	80B	50.225	40.284	53.864	1.00	35.01	B
	ATOM	646	CG	PHE	80B	49.429	40.621	55.091	1.00	32.12	B
	ATOM	647	CD1	PHE	80B	48.193	40.022	55.321	1.00	33.44	B
	ATOM	648	CD2	PHE	80B	49.927	41.508	56.038	1.00	31.48	B
15	ATOM	649	CE1	PHE	80B	47.458	40.299	56.482	1.00	31.32	B
	ATOM	650	CE2	PHE	80B	49.206	41.796	57.202	1.00	31.32	B
	ATOM	651	CZ	PHE	80B	47.967	41.187	57.423	1.00	31.85	B
	ATOM	652	C	PHE	80B	51.348	41.041	51.765	1.00	36.13	B
	ATOM	653	O	PHE	80B	50.949	40.528	50.713	1.00	35.42	B
20	ATOM	654	N	PHE	81B	52.633	41.295	51.997	1.00	36.65	B
	ATOM	655	CA	PHE	81B	53.672	40.955	51.010	1.00	38.86	B
	ATOM	656	CB	PHE	81B	55.007	41.566	51.425	1.00	38.89	B
	ATOM	657	CG	PHE	81B	55.122	43.045	51.102	1.00	37.80	B
	ATOM	658	CD1	PHE	81B	55.042	43.991	52.124	1.00	37.44	B
25	ATOM	659	CD2	PHE	81B	55.311	43.457	49.783	1.00	35.62	B
	ATOM	660	CE1	PHE	81B	55.159	45.350	51.828	1.00	38.03	B
	ATOM	661	CE2	PHE	81B	55.430	44.816	49.485	1.00	36.54	B
	ATOM	662	CZ	PHE	81B	55.355	45.763	50.507	1.00	38.97	B
	ATOM	663	C	PHE	81B	53.834	39.434	50.917	1.00	38.77	B
30	ATOM	664	O	PHE	81B	53.619	38.710	51.888	1.00	39.84	B
	ATOM	665	N	LYS	82B	54.227	38.968	49.722	1.00	39.16	B
	ATOM	666	CA	LYS	82B	54.406	37.523	49.501	1.00	39.63	B
	ATOM	667	CB	LYS	82B	54.595	37.200	48.011	1.00	39.47	B
	ATOM	668	CG	LYS	82B	54.118	35.740	47.677	1.00	40.54	B
35	ATOM	669	CD	LYS	82B	54.455	35.341	46.295	1.00	44.88	B
	ATOM	670	CE	LYS	82B	54.770	33.918	45.802	1.00	45.44	B
	ATOM	671	NZ	LYS	82B	53.696	33.386	44.929	1.00	45.43	B
	ATOM	672	C	LYS	82B	55.635	37.010	50.258	1.00	40.84	B
	ATOM	673	O	LYS	82B	56.695	37.647	50.273	1.00	41.13	B
40	ATOM	674	N	TYR	83B	55.482	35.858	50.879	1.00	40.99	B
	ATOM	675	CA	TYR	83B	56.586	35.261	51.637	1.00	40.95	B
	ATOM	676	CB	TYR	83B	56.513	35.716	53.096	1.00	39.67	B
	ATOM	677	CG	TYR	83B	55.245	35.256	53.799	1.00	40.75	B
	ATOM	678	CD1	TYR	83B	55.183	33.982	54.359	1.00	40.79	B
45	ATOM	679	CE1	TYR	83B	54.021	33.548	54.994	1.00	40.62	B
	ATOM	680	CD2	TYR	83B	54.138	36.100	53.885	1.00	39.70	B
	ATOM	681	CE2	TYR	83B	52.972	35.668	54.517	1.00	41.68	B
	ATOM	682	CZ	TYR	83B	52.913	34.389	55.070	1.00	42.16	B
	ATOM	683	OH	TYR	83B	51.769	33.956	55.681	1.00	41.02	B
50	ATOM	684	C	TYR	83B	56.525	33.731	51.571	1.00	40.59	B
	ATOM	685	O	TYR	83B	55.460	33.141	51.368	1.00	40.43	B
	ATOM	686	N	GLU	84B	57.690	33.098	51.702	1.00	41.04	B
	ATOM	687	CA	GLU	84B	57.803	31.643	51.687	1.00	41.84	B
	ATOM	688	CB	GLU	84B	58.663	31.174	50.510	1.00	44.34	B
55	ATOM	689	CG	GLU	84B	58.955	29.670	50.522	1.00	49.23	B
	ATOM	690	CD	GLU	84B	60.048	29.268	49.541	1.00	52.74	B
	ATOM	691	OE1	GLU	84B	59.994	29.730	48.376	1.00	54.27	B
	ATOM	692	OE2	GLU	84B	60.957	28.484	49.928	1.00	54.69	B
	ATOM	693	C	GLU	84B	58.473	31.210	52.990	1.00	40.03	B

	ATOM	694	O	GLU	84B	59.596	31.619	53.282	1.00	39.14	B
	ATOM	695	N	VAL	85B	57.794	30.386	53.774	1.00	39.37	B
	ATOM	696	CA	VAL	85B	58.377	29.938	55.025	1.00	40.47	B
	ATOM	697	CB	VAL	85B	57.305	29.443	55.998	1.00	40.13	B
5	ATOM	698	CG1	VAL	85B	57.970	28.905	57.263	1.00	37.58	B
	ATOM	699	CG2	VAL	85B	56.339	30.578	56.319	1.00	36.90	B
	ATOM	700	C	VAL	85B	59.395	28.820	54.816	1.00	42.17	B
	ATOM	701	O	VAL	85B	59.131	27.860	54.091	1.00	41.84	B
	ATOM	702	N	LYS	86B	60.560	28.980	55.446	1.00	42.56	B
10	ATOM	703	CA	LYS	86B	61.657	28.015	55.394	1.00	43.52	B
	ATOM	704	CB	LYS	86B	62.890	28.630	54.713	1.00	43.92	B
	ATOM	705	CG	LYS	86B	62.717	29.018	53.237	1.00	45.54	B
	ATOM	706	CD	LYS	86B	63.249	27.938	52.284	1.00	43.64	B
	ATOM	707	CE	LYS	86B	62.584	26.584	52.523	1.00	44.32	B
15	ATOM	708	NZ	LYS	86B	61.101	26.644	52.391	1.00	44.91	B
	ATOM	709	C	LYS	86B	61.999	27.703	56.857	1.00	45.49	B
	ATOM	710	O	LYS	86B	62.967	28.245	57.410	1.00	45.85	B
	ATOM	711	N	GLY	87B	61.205	26.851	57.494	1.00	45.28	B
	ATOM	712	CA	GLY	87B	61.466	26.542	58.889	1.00	45.57	B
20	ATOM	713	C	GLY	87B	61.108	27.690	59.826	1.00	46.67	B
	ATOM	714	O	GLY	87B	59.959	28.136	59.873	1.00	47.07	B
	ATOM	715	N	SER	88B	62.089	28.181	60.577	1.00	48.07	B
	ATOM	716	CA	SER	88B	61.830	29.268	61.519	1.00	49.55	B
	ATOM	717	CB	SER	88B	62.712	29.127	62.764	1.00	48.09	B
25	ATOM	718	OG	SER	88B	64.029	29.572	62.489	1.00	52.48	B
	ATOM	719	C	SER	88B	62.081	30.628	60.877	1.00	49.64	B
	ATOM	720	O	SER	88B	61.846	31.674	61.498	1.00	49.19	B
	ATOM	721	N	ARG	89B	62.587	30.605	59.646	1.00	49.72	B
	ATOM	722	CA	ARG	89B	62.851	31.828	58.899	1.00	48.68	B
30	ATOM	723	CB	ARG	89B	64.280	31.846	58.353	1.00	50.86	B
	ATOM	724	CG	ARG	89B	65.379	31.938	59.406	1.00	52.86	B
	ATOM	725	CD	ARG	89B	65.197	33.134	60.339	1.00	54.79	B
	ATOM	726	NE	ARG	89B	66.492	33.665	60.764	1.00	56.51	B
	ATOM	727	CZ	ARG	89B	67.235	34.494	60.029	1.00	57.37	B
35	ATOM	728	NH1	ARG	89B	66.804	34.899	58.837	1.00	56.45	B
	ATOM	729	NH2	ARG	89B	68.428	34.887	60.463	1.00	57.89	B
	ATOM	730	C	ARG	89B	61.869	31.869	57.740	1.00	48.17	B
	ATOM	731	O	ARG	89B	60.893	31.107	57.716	1.00	48.21	B
	ATOM	732	N	ALB	90B	62.123	32.755	56.779	1.00	46.72	B
40	ATOM	733	CA	ALB	90B	61.254	32.883	55.613	1.00	44.65	B
	ATOM	734	CB	ALB	90B	59.908	33.454	56.031	1.00	44.08	B
	ATOM	735	C	ALB	90B	61.879	33.772	54.545	1.00	43.04	B
	ATOM	736	O	ALB	90B	62.714	34.626	54.850	1.00	41.51	B
	ATOM	737	N	ILE	91B	61.487	33.550	53.292	1.00	42.02	B
45	ATOM	738	CA	ILE	91B	61.974	34.364	52.175	1.00	41.76	B
	ATOM	739	CB	ILE	91B	62.289	33.505	50.932	1.00	40.76	B
	ATOM	740	CG2	ILE	91B	62.677	34.409	49.764	1.00	39.10	B
	ATOM	741	CG1	ILE	91B	63.420	32.529	51.245	1.00	40.98	B
	ATOM	742	CD	ILE	91B	63.775	31.611	50.090	1.00	40.71	B
50	ATOM	743	C	ILE	91B	60.889	35.384	51.793	1.00	40.39	B
	ATOM	744	O	ILE	91B	59.729	35.023	51.615	1.00	40.05	B
	ATOM	745	N	SER	92B	61.262	36.652	51.673	1.00	40.51	B
	ATOM	746	CA	SER	92B	60.289	37.684	51.310	1.00	40.78	B
	ATOM	747	CB	SER	92B	60.525	38.961	52.120	1.00	38.14	B
55	ATOM	748	OG	SER	92B	60.215	38.783	53.485	1.00	35.99	B
	ATOM	749	C	SER	92B	60.355	38.032	49.828	1.00	41.54	B
	ATOM	750	O	SER	92B	61.429	38.310	49.297	1.00	42.68	B
	ATOM	751	N	TYR	93B	59.207	37.995	49.164	1.00	41.16	B
	ATOM	752	CA	TYR	93B	59.124	38.360	47.751	1.00	40.72	B

	ATOM	753	CB	TYR	93B	58.350	37.296	46.963	1.00	41.96	B
	ATOM	754	CG	TYR	93B	59.009	35.931	46.999	1.00	44.64	B
	ATOM	755	CD1	TYR	93B	58.605	34.958	47.922	1.00	46.34	B
	ATOM	756	CE1	TYR	93B	59.246	33.711	47.993	1.00	46.11	B
5	ATOM	757	CD2	TYR	93B	60.074	35.626	46.143	1.00	45.31	B
	ATOM	758	CE2	TYR	93B	60.727	34.387	46.205	1.00	45.89	B
	ATOM	759	CZ	TYR	93B	60.308	33.432	47.131	1.00	48.13	B
	ATOM	760	OH	TYR	93B	60.939	32.198	47.186	1.00	46.00	B
	ATOM	761	C	TYR	93B	58.369	39.689	47.786	1.00	40.66	B
10	ATOM	762	O	TYR	93B	57.155	39.738	47.566	1.00	39.98	B
	ATOM	763	N	CYS	94B	59.111	40.753	48.088	1.00	38.64	B
	ATOM	764	CA	CYS	94B	58.575	42.098	48.247	1.00	37.73	B
	ATOM	765	C	CYS	94B	58.039	42.804	46.999	1.00	39.66	B
	ATOM	766	O	CYS	94B	57.606	43.968	47.059	1.00	35.82	B
15	ATOM	767	CB	CYS	94B	59.627	42.968	48.929	1.00	36.43	B
	ATOM	768	SG	CYS	94B	60.168	42.316	50.547	1.00	39.15	B
	ATOM	769	N	HIS	95B	58.073	42.109	45.868	1.00	38.63	B
	ATOM	770	CA	HIS	95B	57.552	42.674	44.637	1.00	39.42	B
	ATOM	771	CB	HIS	95B	58.580	42.571	43.510	1.00	40.91	B
20	ATOM	772	CG	HIS	95B	59.750	43.486	43.684	1.00	43.86	B
	ATOM	773	CD2	HIS	95B	60.082	44.329	44.692	1.00	45.44	B
	ATOM	774	ND1	HIS	95B	60.746	43.609	42.738	1.00	45.86	B
	ATOM	775	CE1	HIS	95B	61.642	44.489	43.155	1.00	45.81	B
	ATOM	776	NE2	HIS	95B	61.264	44.941	44.338	1.00	46.74	B
25	ATOM	777	C	HIS	95B	56.284	41.926	44.277	1.00	38.27	B
	ATOM	778	O	HIS	95B	55.747	42.072	43.185	1.00	38.98	B
	ATOM	779	N	GLU	96B	55.807	41.122	45.218	1.00	37.66	B
	ATOM	780	CA	GLU	96B	54.585	40.353	45.032	1.00	37.52	B
	ATOM	781	CB	GLU	96B	54.916	38.893	44.749	1.00	39.24	B
30	ATOM	782	CG	GLU	96B	55.342	38.636	43.317	1.00	41.81	B
	ATOM	783	CD	GLU	96B	55.789	37.208	43.089	1.00	42.38	B
	ATOM	784	OE1	GLU	96B	57.004	36.934	43.235	1.00	42.36	B
	ATOM	785	OE2	GLU	96B	54.918	36.365	42.775	1.00	41.56	B
	ATOM	786	C	GLU	96B	53.748	40.452	46.289	1.00	36.92	B
35	ATOM	787	O	GLU	96B	54.212	40.961	47.304	1.00	38.19	B
	ATOM	788	N	THR	97B	52.514	39.966	46.232	1.00	37.24	B
	ATOM	789	CA	THR	97B	51.649	40.016	47.400	1.00	37.23	B
	ATOM	790	CB	THR	97B	50.537	41.084	47.253	1.00	36.05	B
	ATOM	791	OG1	THR	97B	49.470	40.554	46.458	1.00	32.20	B
40	ATOM	792	CG2	THR	97B	51.075	42.341	46.593	1.00	34.02	B
	ATOM	793	C	THR	97B	50.943	38.687	47.589	1.00	39.66	B
	ATOM	794	O	THR	97B	50.901	37.857	46.680	1.00	39.34	B
	ATOM	795	N	MET	98B	50.396	38.487	48.783	1.00	40.43	B
	ATOM	796	CA	MET	98B	49.614	37.292	49.059	1.00	41.24	B
45	ATOM	797	CB	MET	98B	49.485	37.076	50.570	1.00	40.81	B
	ATOM	798	CG	MET	98B	50.812	36.776	51.279	1.00	43.49	B
	ATOM	799	SD	MET	98B	51.627	35.229	50.690	1.00	49.18	B
	ATOM	800	CE	MET	98B	50.612	33.977	51.587	1.00	44.25	B
	ATOM	801	C	MET	98B	48.269	37.702	48.458	1.00	41.94	B
50	ATOM	802	O	MET	98B	48.169	38.782	47.880	1.00	43.14	B
	ATOM	803	N	THR	99B	47.241	36.873	48.565	1.00	42.89	B
	ATOM	804	CA	THR	99B	45.949	37.265	48.014	1.00	43.20	B
	ATOM	805	CB	THR	99B	44.941	36.085	48.005	1.00	42.98	B
	ATOM	806	OG1	THR	99B	45.436	35.041	47.158	1.00	43.70	B
55	ATOM	807	CG2	THR	99B	43.589	36.537	47.470	1.00	42.38	B
	ATOM	808	C	THR	99B	45.404	38.387	48.893	1.00	43.41	B
	ATOM	809	O	THR	99B	45.270	38.223	50.108	1.00	43.67	B
	ATOM	810	N	GLY	100B	45.100	39.527	48.282	1.00	43.83	B
	ATOM	811	CA	GLY	100B	44.589	40.654	49.045	1.00	42.40	B

	ATOM	812	C	GLY	100B	43.133	40.972	48.780	1.00	42.10	B
	ATOM	813	O	GLY	100B	42.497	40.340	47.934	1.00	43.23	B
	ATOM	814	N	TRP	101B	42.620	41.964	49.510	1.00	41.54	B
	ATOM	815	CA	TRP	101B	41.234	42.423	49.407	1.00	38.65	B
5	ATOM	816	CB	TRP	101B	40.580	42.460	50.786	1.00	37.60	B
	ATOM	817	CG	TRP	101B	40.601	41.183	51.555	1.00	38.17	B
	ATOM	818	CD2	TRP	101B	41.708	40.646	52.284	1.00	35.93	B
	ATOM	819	CE2	TRP	101B	41.254	39.477	52.932	1.00	37.52	B
	ATOM	820	CE3	TRP	101B	43.044	41.042	52.456	1.00	36.75	B
10	ATOM	821	CD1	TRP	101B	39.548	40.338	51.775	1.00	36.86	B
	ATOM	822	NE1	TRP	101B	39.932	39.313	52.605	1.00	39.16	B
	ATOM	823	CZ2	TRP	101B	42.085	38.698	53.745	1.00	36.93	B
	ATOM	824	CZ3	TRP	101B	43.873	40.269	53.264	1.00	37.33	B
	ATOM	825	CH2	TRP	101B	43.387	39.108	53.899	1.00	37.88	B
15	ATOM	826	C	TRP	101B	41.146	43.838	48.841	1.00	39.41	B
	ATOM	827	O	TRP	101B	41.904	44.721	49.236	1.00	39.32	B
	ATOM	828	N	VAL	102B	40.206	44.054	47.929	1.00	38.94	B
	ATOM	829	CA	VAL	102B	39.991	45.373	47.344	1.00	37.82	B
	ATOM	830	CB	VAL	102B	40.479	45.446	45.880	1.00	38.60	B
20	ATOM	831	CG1	VAL	102B	39.898	44.287	45.073	1.00	35.67	B
	ATOM	832	CG2	VAL	102B	40.060	46.781	45.261	1.00	36.17	B
	ATOM	833	C	VAL	102B	38.489	45.657	47.373	1.00	37.78	B
	ATOM	834	O	VAL	102B	37.679	44.781	47.080	1.00	36.73	B
	ATOM	835	N	HIS	103B	38.118	46.875	47.736	1.00	37.51	B
25	ATOM	836	CA	HIS	103B	36.709	47.232	47.793	1.00	38.11	B
	ATOM	837	CB	HIS	103B	36.079	46.649	49.070	1.00	39.51	B
	ATOM	838	CG	HIS	103B	36.687	47.154	50.348	1.00	41.39	B
	ATOM	839	CD2	HIS	103B	37.386	46.511	51.316	1.00	41.87	B
	ATOM	840	ND1	HIS	103B	36.540	48.452	50.784	1.00	41.56	B
30	ATOM	841	CE1	HIS	103B	37.116	48.587	51.967	1.00	42.43	B
	ATOM	842	NE2	HIS	103B	37.637	47.424	52.312	1.00	40.73	B
	ATOM	843	C	HIS	103B	36.524	48.748	47.728	1.00	37.50	B
	ATOM	844	O	HIS	103B	37.460	49.495	47.988	1.00	36.51	B
	ATOM	845	N	ASP	104B	35.330	49.205	47.359	1.00	37.38	B
35	ATOM	846	CA	ASP	104B	35.096	50.650	47.293	1.00	36.88	B
	ATOM	847	CB	ASP	104B	33.790	50.966	46.551	1.00	36.02	B
	ATOM	848	CG	ASP	104B	32.595	50.279	47.155	1.00	38.57	B
	ATOM	849	OD1	ASP	104B	31.933	49.511	46.416	1.00	38.16	B
	ATOM	850	OD2	ASP	104B	32.311	50.506	48.357	1.00	35.46	B
40	ATOM	851	C	ASP	104B	35.084	51.217	48.712	1.00	35.42	B
	ATOM	852	O	ASP	104B	34.909	50.479	49.681	1.00	34.95	B
	ATOM	853	N	VAL	105B	35.281	52.523	48.831	1.00	33.60	B
	ATOM	854	CA	VAL	105B	35.350	53.175	50.133	1.00	32.29	B
	ATOM	855	CB	VAL	105B	35.598	54.693	49.957	1.00	31.63	B
45	ATOM	856	CG1	VAL	105B	36.884	54.913	49.171	1.00	30.32	B
	ATOM	857	CG2	VAL	105B	34.437	55.337	49.237	1.00	27.80	B
	ATOM	858	C	VAL	105B	34.167	52.947	51.081	1.00	33.05	B
	ATOM	859	O	VAL	105B	34.252	53.266	52.268	1.00	31.76	B
	ATOM	860	N	LEU	106B	33.079	52.384	50.561	1.00	32.31	B
50	ATOM	861	CA	LEU	106B	31.890	52.107	51.364	1.00	31.31	B
	ATOM	862	CB	LEU	106B	30.630	52.497	50.582	1.00	30.02	B
	ATOM	863	CG	LEU	106B	30.400	53.995	50.356	1.00	31.66	B
	ATOM	864	CD1	LEU	106B	29.422	54.203	49.220	1.00	25.76	B
	ATOM	865	CD2	LEU	106B	29.901	54.639	51.648	1.00	27.26	B
55	ATOM	866	C	LEU	106B	31.806	50.630	51.771	1.00	32.32	B
	ATOM	867	O	LEU	106B	30.972	50.242	52.587	1.00	32.18	B
	ATOM	868	N	GLY	107B	32.678	49.811	51.196	1.00	32.88	B
	ATOM	869	CA	GLY	107B	32.670	48.395	51.501	1.00	33.74	B
	ATOM	870	C	GLY	107B	31.561	47.657	50.772	1.00	34.80	B

	ATOM	871	O	GLY	107B	31.240	46.513	51.103	1.00	34.00	B
	ATOM	872	N	ARG	108B	30.978	48.307	49.769	1.00	34.65	B
	ATOM	873	CA	ARG	108B	29.887	47.708	48.998	1.00	35.31	B
	ATOM	874	CB	ARG	108B	29.186	48.788	48.168	1.00	35.78	B
5	ATOM	875	CG	ARG	108B	28.600	49.932	48.985	1.00	35.90	B
	ATOM	876	CD	ARG	108B	27.327	49.537	49.720	1.00	34.67	B
	ATOM	877	NE	ARG	108B	26.683	50.716	50.283	1.00	34.30	B
	ATOM	878	CZ	ARG	108B	26.889	51.171	51.513	1.00	34.94	B
	ATOM	879	NH1	ARG	108B	27.715	50.529	52.326	1.00	33.52	B
10	ATOM	880	NH2	ARG	108B	26.304	52.295	51.916	1.00	34.11	B
	ATOM	881	C	ARG	108B	30.339	46.562	48.077	1.00	35.34	B
	ATOM	882	O	ARG	108B	29.918	45.421	48.255	1.00	33.84	B
	ATOM	883	N	ASN	109B	31.186	46.869	47.097	1.00	34.21	B
	ATOM	884	CA	ASN	109B	31.677	45.854	46.167	1.00	34.56	B
15	ATOM	885	CB	ASN	109B	31.616	46.385	44.734	1.00	33.46	B
	ATOM	886	CG	ASN	109B	30.199	46.606	44.268	1.00	36.30	B
	ATOM	887	OD1	ASN	109B	29.342	45.758	44.475	1.00	37.28	B
	ATOM	888	ND2	ASN	109B	29.942	47.744	43.634	1.00	37.52	B
	ATOM	889	C	ASN	109B	33.101	45.372	46.479	1.00	34.94	B
20	ATOM	890	O	ASN	109B	34.043	46.163	46.526	1.00	33.89	B
	ATOM	891	N	TRP	110B	33.255	44.069	46.679	1.00	34.48	B
	ATOM	892	CA	TRP	110B	34.567	43.503	46.992	1.00	35.17	B
	ATOM	893	CB	TRP	110B	34.532	42.741	48.316	1.00	32.70	B
	ATOM	894	CG	TRP	110B	34.241	43.567	49.530	1.00	34.21	B
25	ATOM	895	CD2	TRP	110B	35.036	43.638	50.726	1.00	33.47	B
	ATOM	896	CE2	TRP	110B	34.332	44.446	51.650	1.00	33.75	B
	ATOM	897	CE3	TRP	110B	36.271	43.091	51.109	1.00	32.14	B
	ATOM	898	CD1	TRP	110B	33.125	44.322	49.768	1.00	34.45	B
	ATOM	899	NE1	TRP	110B	33.171	44.849	51.042	1.00	35.76	B
30	ATOM	900	CZ2	TRP	110B	34.821	44.721	52.933	1.00	31.68	B
	ATOM	901	CZ3	TRP	110B	36.756	43.365	52.392	1.00	31.39	B
	ATOM	902	CH2	TRP	110B	36.031	44.171	53.283	1.00	30.25	B
	ATOM	903	C	TRP	110B	35.089	42.555	45.924	1.00	36.33	B
	ATOM	904	O	TRP	110B	34.360	42.109	45.038	1.00	36.49	B
35	ATOM	905	N	ALA	111B	36.371	42.239	46.035	1.00	36.87	B
	ATOM	906	CA	ALA	111B	37.025	41.326	45.116	1.00	37.24	B
	ATOM	907	CB	ALA	111B	37.200	41.981	43.762	1.00	35.55	B
	ATOM	908	C	ALA	111B	38.378	40.993	45.715	1.00	37.20	B
	ATOM	909	O	ALA	111B	38.906	41.756	46.519	1.00	39.28	B
40	ATOM	910	N	CYS	112B	38.930	39.845	45.349	1.00	37.49	B
	ATOM	911	CA	CYS	112B	40.240	39.461	45.847	1.00	37.32	B
	ATOM	912	C	CYS	112B	41.209	39.800	44.729	1.00	36.72	B
	ATOM	913	O	CYS	112B	40.815	39.892	43.566	1.00	35.91	B
	ATOM	914	CB	CYS	112B	40.287	37.967	46.149	1.00	37.03	B
45	ATOM	915	SG	CYS	112B	39.043	37.410	47.353	1.00	43.03	B
	ATOM	916	N	PHE	113B	42.474	39.993	45.070	1.00	36.33	B
	ATOM	917	CA	PHE	113B	43.458	40.324	44.051	1.00	36.32	B
	ATOM	918	CB	PHE	113B	43.466	41.841	43.802	1.00	33.39	B
	ATOM	919	CG	PHE	113B	44.242	42.633	44.831	1.00	33.68	B
50	ATOM	920	CD1	PHE	113B	45.585	42.945	44.623	1.00	32.68	B
	ATOM	921	CD2	PHE	113B	43.632	43.066	46.005	1.00	31.95	B
	ATOM	922	CE1	PHE	113B	46.304	43.675	45.561	1.00	32.07	B
	ATOM	923	CE2	PHE	113B	44.347	43.799	46.950	1.00	31.07	B
	ATOM	924	CZ	PHE	113B	45.683	44.103	46.725	1.00	31.20	B
55	ATOM	925	C	PHE	113B	44.849	39.864	44.454	1.00	37.28	B
	ATOM	926	O	PHE	113B	45.103	39.550	45.619	1.00	37.88	B
	ATOM	927	N	VAL	114B	45.737	39.811	43.470	1.00	38.19	B
	ATOM	928	CA	VAL	114B	47.120	39.436	43.701	1.00	39.37	B
	ATOM	929	CB	VAL	114B	47.449	38.031	43.156	1.00	41.84	B

	ATOM	930	CG1	VAL	114B	48.963	37.774	43.233	1.00	41.72	B
	ATOM	931	CG2	VAL	114B	46.743	37.002	43.982	1.00	43.04	B
	ATOM	932	C	VAL	114B	47.940	40.457	42.948	1.00	39.00	B
	ATOM	933	O	VAL	114B	47.573	40.857	41.847	1.00	41.12	B
5	ATOM	934	N	GLY	115B	49.043	40.885	43.540	1.00	39.39	B
	ATOM	935	CA	GLY	115B	49.864	41.864	42.872	1.00	39.84	B
	ATOM	936	C	GLY	115B	51.284	41.429	42.585	1.00	40.57	B
	ATOM	937	O	GLY	115B	51.905	40.700	43.363	1.00	37.96	B
	ATOM	938	N	LYS	116B	51.784	41.869	41.434	1.00	40.96	B
10	ATOM	939	CA	LYS	116B	53.153	41.601	41.030	1.00	44.38	B
	ATOM	940	CB	LYS	116B	53.227	40.547	39.927	1.00	45.69	B
	ATOM	941	CG	LYS	116B	54.660	40.155	39.574	1.00	48.45	B
	ATOM	942	CD	LYS	116B	54.696	39.135	38.435	1.00	52.22	B
	ATOM	943	CE	LYS	116B	56.135	38.767	38.045	1.00	55.49	B
15	ATOM	944	NZ	LYS	116B	56.178	37.745	36.920	1.00	56.81	B
	ATOM	945	C	LYS	116B	53.681	42.934	40.521	1.00	45.21	B
	ATOM	946	O	LYS	116B	53.093	43.558	39.641	1.00	45.69	B
	ATOM	947	N	LYS	117B	54.766	43.382	41.055	1.00	46.45	B
	ATOM	948	CA	LYS	117B	55.357	44.698	40.743	1.00	49.63	B
20	ATOM	949	CB	LYS	117B	56.380	45.014	41.804	1.00	47.60	B
	ATOM	950	CG	LYS	117B	56.769	46.466	41.861	1.00	45.85	B
	ATOM	951	CD	LYS	117B	57.831	46.691	42.907	1.00	46.74	B
	ATOM	952	CE	LYS	117B	58.460	48.059	42.845	1.00	45.21	B
	ATOM	953	NZ	LYS	117B	59.680	48.137	43.651	1.00	46.48	B
25	ATOM	954	C	LYS	117B	56.031	44.625	39.387	1.00	51.95	B
	ATOM	955	O	LYS	117B	56.316	43.570	38.821	1.00	52.94	B
	ATOM	956	N	MET	118B	56.343	45.679	38.722	1.00	56.26	B
	ATOM	957	CA	MET	118B	57.022	45.366	37.459	1.00	60.51	B
	ATOM	958	CB	MET	118B	56.059	45.578	36.218	1.00	62.19	B
30	ATOM	959	CG	MET	118B	55.737	46.954	35.788	1.00	64.16	B
	ATOM	960	SD	MET	118B	55.202	47.107	34.069	1.00	71.85	B
	ATOM	961	CE	MET	118B	53.407	47.159	33.998	1.00	66.22	B
	ATOM	962	C	MET	118B	58.302	46.121	37.464	1.00	62.12	B
	ATOM	963	O	MET	118B	58.947	46.172	38.539	1.00	62.77	B
35	ATOM	964	CB	LEU	204B	45.032	74.823	68.539	1.00	60.76	B
	ATOM	965	CG	LEU	204B	44.853	74.159	69.913	1.00	63.17	B
	ATOM	966	CD1	LEU	204B	43.569	74.679	70.598	1.00	61.64	B
	ATOM	967	CD2	LEU	204B	44.781	72.643	69.737	1.00	63.24	B
	ATOM	968	C	LEU	204B	47.163	75.844	69.306	1.00	57.86	B
40	ATOM	969	O	LEU	204B	48.044	75.146	68.789	1.00	59.03	B
	ATOM	970	N	LEU	204B	46.049	76.629	67.170	1.00	59.06	B
	ATOM	971	CA	LEU	204B	45.852	76.117	68.564	1.00	59.27	B
	ATOM	972	N	SER	205B	47.292	76.395	70.514	1.00	54.67	B
	ATOM	973	CA	SER	205B	48.482	76.173	71.341	1.00	51.99	B
45	ATOM	974	CB	SER	205B	48.808	77.426	72.163	1.00	51.92	B
	ATOM	975	OG	SER	205B	49.568	78.365	71.415	1.00	50.74	B
	ATOM	976	C	SER	205B	48.204	74.992	72.286	1.00	49.72	B
	ATOM	977	O	SER	205B	47.268	75.045	73.085	1.00	48.73	B
	ATOM	978	N	LEU	206B	49.013	73.935	72.198	1.00	47.50	B
50	ATOM	979	CA	LEU	206B	48.817	72.748	73.037	1.00	45.23	B
	ATOM	980	CB	LEU	206B	49.548	71.547	72.432	1.00	45.07	B
	ATOM	981	CG	LEU	206B	49.119	71.130	71.024	1.00	45.79	B
	ATOM	982	CD1	LEU	206B	50.079	70.102	70.478	1.00	44.15	B
	ATOM	983	CD2	LEU	206B	47.709	70.577	71.057	1.00	48.05	B
55	ATOM	984	C	LEU	206B	49.298	72.956	74.467	1.00	44.04	B
	ATOM	985	O	LEU	206B	50.277	73.660	74.703	1.00	42.90	B
	ATOM	986	N	PRO	207B	48.609	72.348	75.444	1.00	43.73	B
	ATOM	987	CD	PRO	207B	47.382	71.538	75.320	1.00	44.29	B
	ATOM	988	CA	PRO	207B	49.006	72.490	76.852	1.00	43.66	B

	ATOM	989	CB	PRO	207B	47.827	71.882	77.609	1.00	42.25	B
	ATOM	990	CG	PRO	207B	47.341	70.810	76.662	1.00	43.03	B
	ATOM	991	C	PRO	207B	50.309	71.756	77.131	1.00	44.45	B
	ATOM	992	O	PRO	207B	50.678	70.836	76.391	1.00	42.69	B
5	ATOM	993	N	GLU	208B	50.998	72.162	78.199	1.00	45.03	B
	ATOM	994	CA	GLU	208B	52.266	71.546	78.579	1.00	45.59	B
	ATOM	995	CB	GLU	208B	52.973	72.383	79.662	1.00	49.91	B
	ATOM	996	CG	GLU	208B	54.389	71.868	79.992	1.00	58.35	B
	ATOM	997	CD	GLU	208B	55.177	72.777	80.946	1.00	63.73	B
10	ATOM	998	OE1	GLU	208B	55.328	73.990	80.633	1.00	64.92	B
	ATOM	999	OE2	GLU	208B	55.659	72.270	82.002	1.00	64.51	B
	ATOM	1000	C	GLU	208B	52.073	70.116	79.078	1.00	43.40	B
	ATOM	1001	O	GLU	208B	53.022	69.337	79.129	1.00	43.14	B
	ATOM	1002	N	SER	209B	50.844	69.775	79.448	1.00	41.64	B
15	ATOM	1003	CA	SER	209B	50.541	68.434	79.942	1.00	42.98	B
	ATOM	1004	CB	SER	209B	50.623	68.369	81.472	1.00	41.86	B
	ATOM	1005	OG	SER	209B	51.962	68.464	81.909	1.00	46.88	B
	ATOM	1006	C	SER	209B	49.156	67.999	79.543	1.00	41.34	B
	ATOM	1007	O	SER	209B	48.274	68.824	79.319	1.00	41.63	B
20	ATOM	1008	N	TRP	210B	48.969	66.690	79.463	1.00	39.80	B
	ATOM	1009	CA	TRP	210B	47.672	66.142	79.130	1.00	39.50	B
	ATOM	1010	CB	TRP	210B	47.434	66.164	77.622	1.00	39.54	B
	ATOM	1011	CG	TRP	210B	45.998	65.990	77.301	1.00	40.74	B
	ATOM	1012	CD2	TRP	210B	44.975	66.984	77.414	1.00	42.13	B
25	ATOM	1013	CE2	TRP	210B	43.755	66.369	77.062	1.00	43.40	B
	ATOM	1014	CE3	TRP	210B	44.971	68.340	77.780	1.00	41.72	B
	ATOM	1015	CD1	TRP	210B	45.377	64.845	76.898	1.00	41.01	B
	ATOM	1016	NE1	TRP	210B	44.029	65.062	76.751	1.00	43.32	B
	ATOM	1017	CZ2	TRP	210B	42.539	67.063	77.062	1.00	43.55	B
30	ATOM	1018	CZ3	TRP	210B	43.765	69.029	77.780	1.00	41.80	B
	ATOM	1019	CH2	TRP	210B	42.566	68.389	77.423	1.00	42.60	B
	ATOM	1020	C	TRP	210B	47.600	64.722	79.650	1.00	38.40	B
	ATOM	1021	O	TRP	210B	48.606	64.024	79.709	1.00	38.62	B
	ATOM	1022	N	ASP	211B	46.403	64.304	80.032	1.00	37.90	B
35	ATOM	1023	CA	ASP	211B	46.200	62.975	80.565	1.00	39.42	B
	ATOM	1024	CB	ASP	211B	46.576	62.947	82.051	1.00	40.30	B
	ATOM	1025	CG	ASP	211B	46.592	61.542	82.626	1.00	42.13	B
	ATOM	1026	OD1	ASP	211B	45.761	60.698	82.212	1.00	41.61	B
	ATOM	1027	OD2	ASP	211B	47.435	61.283	83.508	1.00	44.89	B
40	ATOM	1028	C	ASP	211B	44.725	62.664	80.408	1.00	38.98	B
	ATOM	1029	O	ASP	211B	43.893	63.212	81.136	1.00	40.10	B
	ATOM	1030	N	TRP	212B	44.395	61.787	79.467	1.00	37.88	B
	ATOM	1031	CA	TRP	212B	42.994	61.444	79.242	1.00	37.19	B
	ATOM	1032	CB	TRP	212B	42.848	60.645	77.950	1.00	34.20	B
45	ATOM	1033	CG	TRP	212B	42.832	61.530	76.747	1.00	34.97	B
	ATOM	1034	CD2	TRP	212B	41.820	62.481	76.406	1.00	33.58	B
	ATOM	1035	CE2	TRP	212B	42.225	63.112	75.208	1.00	32.11	B
	ATOM	1036	CE3	TRP	212B	40.607	62.861	76.997	1.00	33.15	B
	ATOM	1037	CD1	TRP	212B	43.785	61.620	75.771	1.00	34.50	B
50	ATOM	1038	NE1	TRP	212B	43.427	62.567	74.846	1.00	31.73	B
	ATOM	1039	CZ2	TRP	212B	41.460	64.108	74.589	1.00	31.38	B
	ATOM	1040	CZ3	TRP	212B	39.843	63.853	76.381	1.00	33.67	B
	ATOM	1041	CH2	TRP	212B	40.277	64.464	75.187	1.00	31.45	B
	ATOM	1042	C	TRP	212B	42.333	60.708	80.398	1.00	36.01	B
55	ATOM	1043	O	TRP	212B	41.158	60.355	80.329	1.00	35.38	B
	ATOM	1044	N	ARG	213B	43.089	60.480	81.463	1.00	36.60	B
	ATOM	1045	CA	ARG	213B	42.547	59.805	82.633	1.00	39.10	B
	ATOM	1046	CB	ARG	213B	43.607	58.934	83.311	1.00	38.63	B
	ATOM	1047	CG	ARG	213B	44.037	57.711	82.515	1.00	40.76	B

	ATOM	1048	CD	ARG	213B	45.218	57.031	83.184	1.00	40.47	B
	ATOM	1049	NE	ARG	213B	46.340	57.947	83.389	1.00	40.24	B
	ATOM	1050	CZ	ARG	213B	47.462	57.623	84.026	1.00	42.14	B
	ATOM	1051	NH1	ARG	213B	47.615	56.402	84.523	1.00	42.64	B
5	ATOM	1052	NH2	ARG	213B	48.435	58.513	84.169	1.00	41.28	B
	ATOM	1053	C	ARG	213B	42.083	60.861	83.614	1.00	39.11	B
	ATOM	1054	O	ARG	213B	41.421	60.552	84.597	1.00	41.12	B
	ATOM	1055	N	ASN	214B	42.431	62.112	83.336	1.00	39.70	B
	ATOM	1056	CA	ASN	214B	42.066	63.212	84.216	1.00	40.84	B
10	ATOM	1057	CB	ASN	214B	43.053	63.275	85.389	1.00	41.89	B
	ATOM	1058	CG	ASN	214B	42.741	64.396	86.379	1.00	44.07	B
	ATOM	1059	OD1	ASN	214B	43.346	64.455	87.443	1.00	48.05	B
	ATOM	1060	ND2	ASN	214B	41.809	65.286	86.033	1.00	42.55	B
	ATOM	1061	C	ASN	214B	42.026	64.546	83.479	1.00	40.29	B
15	ATOM	1062	O	ASN	214B	42.981	65.323	83.488	1.00	39.26	B
	ATOM	1063	N	VAL	215B	40.901	64.793	82.829	1.00	41.48	B
	ATOM	1064	CA	VAL	215B	40.702	66.029	82.106	1.00	42.51	B
	ATOM	1065	CB	VAL	215B	40.185	65.773	80.685	1.00	41.57	B
	ATOM	1066	CG1	VAL	215B	39.902	67.098	79.987	1.00	40.74	B
20	ATOM	1067	CG2	VAL	215B	41.214	64.970	79.914	1.00	40.54	B
	ATOM	1068	C	VAL	215B	39.662	66.767	82.912	1.00	43.98	B
	ATOM	1069	O	VAL	215B	38.466	66.470	82.839	1.00	42.91	B
	ATOM	1070	N	ARG	216B	40.138	67.713	83.712	1.00	47.02	B
	ATOM	1071	CA	ARG	216B	39.264	68.495	84.560	1.00	48.40	B
25	ATOM	1072	CB	ARG	216B	38.329	69.337	83.679	1.00	50.63	B
	ATOM	1073	CG	ARG	216B	39.073	70.542	83.067	1.00	55.55	B
	ATOM	1074	CD	ARG	216B	38.498	71.054	81.730	1.00	57.36	B
	ATOM	1075	NE	ARG	216B	37.101	71.473	81.815	1.00	59.32	B
	ATOM	1076	CZ	ARG	216B	36.632	72.635	81.349	1.00	61.88	B
30	ATOM	1077	NH1	ARG	216B	37.446	73.509	80.764	1.00	61.15	B
	ATOM	1078	NH2	ARG	216B	35.333	72.928	81.462	1.00	62.48	B
	ATOM	1079	C	ARG	216B	38.510	67.541	85.479	1.00	47.55	B
	ATOM	1080	O	ARG	216B	37.307	67.693	85.710	1.00	49.30	B
	ATOM	1081	N	GLY	217B	39.244	66.543	85.980	1.00	45.20	B
35	ATOM	1082	CA	GLY	217B	38.690	65.556	86.895	1.00	42.32	B
	ATOM	1083	C	GLY	217B	38.031	64.327	86.293	1.00	42.42	B
	ATOM	1084	O	GLY	217B	37.777	63.340	86.994	1.00	42.79	B
	ATOM	1085	N	ILE	218B	37.759	64.367	84.994	1.00	41.93	B
	ATOM	1086	CA	ILE	218B	37.104	63.252	84.320	1.00	40.79	B
40	ATOM	1087	CB	ILE	218B	36.213	63.750	83.165	1.00	42.89	B
	ATOM	1088	CG2	ILE	218B	35.224	62.648	82.774	1.00	42.09	B
	ATOM	1089	CG1	ILE	218B	35.498	65.052	83.558	1.00	44.62	B
	ATOM	1090	CD	ILE	218B	34.530	64.911	84.727	1.00	44.91	B
	ATOM	1091	C	ILE	218B	38.065	62.231	83.711	1.00	39.93	B
45	ATOM	1092	O	ILE	218B	39.115	62.590	83.179	1.00	39.30	B
	ATOM	1093	N	ASN	219B	37.696	60.955	83.784	1.00	38.06	B
	ATOM	1094	CA	ASN	219B	38.508	59.905	83.180	1.00	38.18	B
	ATOM	1095	CB	ASN	219B	38.680	58.717	84.126	1.00	37.26	B
	ATOM	1096	CG	ASN	219B	39.192	57.468	83.406	1.00	42.75	B
50	ATOM	1097	OD1	ASN	219B	40.289	57.463	82.833	1.00	43.24	B
	ATOM	1098	ND2	ASN	219B	38.392	56.404	83.427	1.00	42.67	B
	ATOM	1099	C	ASN	219B	37.795	59.430	81.919	1.00	36.57	B
	ATOM	1100	O	ASN	219B	36.584	59.250	81.928	1.00	37.77	B
	ATOM	1101	N	PHE	220B	38.534	59.239	80.834	1.00	35.18	B
55	ATOM	1102	CA	PHE	220B	37.925	58.764	79.598	1.00	34.39	B
	ATOM	1103	CB	PHE	220B	38.074	59.791	78.471	1.00	34.19	B
	ATOM	1104	CG	PHE	220B	37.391	61.102	78.733	1.00	33.94	B
	ATOM	1105	CD1	PHE	220B	38.049	62.123	79.405	1.00	34.39	B
	ATOM	1106	CD2	PHE	220B	36.097	61.329	78.278	1.00	34.54	B

	ATOM	1107	CE1	PHE	220B	37.433	63.359	79.616	1.00	34.94	B
	ATOM	1108	CE2	PHE	220B	35.473	62.560	78.485	1.00	36.85	B
	ATOM	1109	CZ	PHE	220B	36.148	63.578	79.157	1.00	34.41	B
	ATOM	1110	C	PHE	220B	38.559	57.460	79.135	1.00	35.50	B
5	ATOM	1111	O	PHE	220B	38.219	56.952	78.070	1.00	38.07	B
	ATOM	1112	N	VAL	221B	39.481	56.916	79.922	1.00	34.77	B
	ATOM	1113	CA	VAL	221B	40.153	55.681	79.530	1.00	34.31	B
	ATOM	1114	CB	VAL	221B	41.677	55.742	79.865	1.00	32.66	B
	ATOM	1115	CG1	VAL	221B	42.400	54.564	79.232	1.00	30.25	B
10	ATOM	1116	CG2	VAL	221B	42.269	57.055	79.387	1.00	28.53	B
	ATOM	1117	C	VAL	221B	39.548	54.444	80.192	1.00	35.79	B
	ATOM	1118	O	VAL	221B	39.288	54.431	81.396	1.00	37.58	B
	ATOM	1119	N	SER	222B	39.324	53.408	79.389	1.00	37.78	B
	ATOM	1120	CA	SER	222B	38.765	52.150	79.869	1.00	37.88	B
15	ATOM	1121	CB	SER	222B	38.376	51.253	78.689	1.00	36.20	B
	ATOM	1122	OG	SER	222B	39.519	50.805	77.982	1.00	37.10	B
	ATOM	1123	C	SER	222B	39.822	51.468	80.742	1.00	40.28	B
	ATOM	1124	O	SER	222B	41.003	51.815	80.680	1.00	41.12	B
	ATOM	1125	N	PRO	223B	39.413	50.481	81.558	1.00	41.46	B
20	ATOM	1126	CD	PRO	223B	38.024	50.051	81.800	1.00	41.70	B
	ATOM	1127	CA	PRO	223B	40.336	49.766	82.450	1.00	42.55	B
	ATOM	1128	CB	PRO	223B	39.395	48.904	83.303	1.00	41.62	B
	ATOM	1129	CG	PRO	223B	38.079	49.649	83.251	1.00	41.09	B
	ATOM	1130	C	PRO	223B	41.427	48.923	81.786	1.00	43.22	B
25	ATOM	1131	O	PRO	223B	41.252	48.404	80.681	1.00	44.82	B
	ATOM	1132	N	VAL	224B	42.554	48.794	82.480	1.00	42.02	B
	ATOM	1133	CA	VAL	224B	43.670	47.995	82.007	1.00	39.95	B
	ATOM	1134	CB	VAL	224B	44.871	48.100	82.969	1.00	40.39	B
	ATOM	1135	CG1	VAL	224B	45.979	47.157	82.529	1.00	39.21	B
30	ATOM	1136	CG2	VAL	224B	45.381	49.535	83.013	1.00	38.24	B
	ATOM	1137	C	VAL	224B	43.213	46.537	81.942	1.00	40.52	B
	ATOM	1138	O	VAL	224B	42.377	46.090	82.731	1.00	39.90	B
	ATOM	1139	N	ARG	225B	43.759	45.800	80.988	1.00	40.16	B
	ATOM	1140	CA	ARG	225B	43.418	44.398	80.821	1.00	39.12	B
35	ATOM	1141	CB	ARG	225B	42.577	44.203	79.559	1.00	40.37	B
	ATOM	1142	CG	ARG	225B	41.263	44.953	79.583	1.00	38.54	B
	ATOM	1143	CD	ARG	225B	40.353	44.457	78.475	1.00	40.13	B
	ATOM	1144	NE	ARG	225B	39.906	43.087	78.700	1.00	36.10	B
	ATOM	1145	CZ	ARG	225B	39.053	42.440	77.911	1.00	37.08	B
40	ATOM	1146	NH1	ARG	225B	38.555	43.035	76.835	1.00	36.45	B
	ATOM	1147	NH2	ARG	225B	38.672	41.207	78.216	1.00	37.85	B
	ATOM	1148	C	ARG	225B	44.711	43.609	80.719	1.00	39.00	B
	ATOM	1149	O	ARG	225B	45.795	44.192	80.748	1.00	36.32	B
	ATOM	1150	N	ASN	226B	44.602	42.288	80.601	1.00	39.77	B
45	ATOM	1151	CA	ASN	226B	45.786	41.439	80.505	1.00	40.94	B
	ATOM	1152	CB	ASN	226B	45.951	40.621	81.788	1.00	41.93	B
	ATOM	1153	CG	ASN	226B	47.363	40.126	81.979	1.00	43.59	B
	ATOM	1154	OD1	ASN	226B	48.008	39.665	81.036	1.00	44.46	B
	ATOM	1155	ND2	ASN	226B	47.857	40.216	83.207	1.00	43.95	B
50	ATOM	1156	C	ASN	226B	45.672	40.493	79.312	1.00	40.33	B
	ATOM	1157	O	ASN	226B	44.780	39.645	79.275	1.00	40.17	B
	ATOM	1158	N	GLN	227B	46.583	40.638	78.350	1.00	39.53	B
	ATOM	1159	CA	GLN	227B	46.585	39.807	77.145	1.00	40.81	B
	ATOM	1160	CB	GLN	227B	47.502	40.434	76.074	1.00	39.19	B
55	ATOM	1161	CG	GLN	227B	48.996	40.255	76.332	1.00	39.71	B
	ATOM	1162	CD	GLN	227B	49.877	41.096	75.422	1.00	39.59	B
	ATOM	1163	OE1	GLN	227B	50.146	42.259	75.705	1.00	41.91	B
	ATOM	1164	NE2	GLN	227B	50.328	40.510	74.320	1.00	39.77	B
	ATOM	1165	C	GLN	227B	47.055	38.378	77.468	1.00	41.13	B

	ATOM	1166	O	GLN	227B	46.906	37.459	76.653	1.00	38.36	B
	ATOM	1167	N	GLU	228B	47.613	38.209	78.666	1.00	41.73	B
	ATOM	1168	CA	GLU	228B	48.129	36.919	79.131	1.00	42.48	B
	ATOM	1169	CB	GLU	228B	46.976	35.934	79.368	1.00	42.68	B
5	ATOM	1170	CG	GLU	228B	45.886	36.455	80.314	1.00	44.71	B
	ATOM	1171	CD	GLU	228B	46.367	36.681	81.760	1.00	48.49	B
	ATOM	1172	OE1	GLU	228B	47.598	36.663	82.007	1.00	47.21	B
	ATOM	1173	OE2	GLU	228B	45.504	36.890	82.651	1.00	46.44	B
	ATOM	1174	C	GLU	228B	49.157	36.324	78.155	1.00	43.29	B
10	ATOM	1175	O	GLU	228B	50.104	37.012	77.758	1.00	42.72	B
	ATOM	1176	N	SER	229B	48.971	35.062	77.765	1.00	43.13	B
	ATOM	1177	CA	SER	229B	49.912	34.394	76.862	1.00	44.45	B
	ATOM	1178	CB	SER	229B	50.166	32.959	77.336	1.00	44.84	B
	ATOM	1179	OG	SER	229B	50.940	32.963	78.525	1.00	49.54	B
15	ATOM	1180	C	SER	229B	49.482	34.367	75.405	1.00	43.87	B
	ATOM	1181	O	SER	229B	49.331	33.302	74.805	1.00	45.29	B
	ATOM	1182	N	CYS	230B	49.303	35.545	74.832	1.00	42.76	B
	ATOM	1183	CA	CYS	230B	48.873	35.650	73.450	1.00	41.61	B
	ATOM	1184	C	CYS	230B	49.437	36.965	72.931	1.00	41.02	B
20	ATOM	1185	O	CYS	230B	49.342	37.998	73.601	1.00	38.36	B
	ATOM	1186	CB	CYS	230B	47.338	35.615	73.417	1.00	42.39	B
	ATOM	1187	SG	CYS	230B	46.471	35.943	71.844	1.00	45.00	B
	ATOM	1188	N	GLY	231B	50.071	36.913	71.764	1.00	40.31	B
	ATOM	1189	CA	GLY	231B	50.637	38.121	71.187	1.00	42.36	B
25	ATOM	1190	C	GLY	231B	49.527	38.956	70.577	1.00	42.45	B
	ATOM	1191	O	GLY	231B	49.537	39.229	69.378	1.00	44.11	B
	ATOM	1192	N	SER	232B	48.565	39.347	71.411	1.00	40.90	B
	ATOM	1193	CA	SER	232B	47.413	40.126	70.981	1.00	41.07	B
	ATOM	1194	CB	SER	232B	46.128	39.467	71.483	1.00	40.51	B
30	ATOM	1195	OG	SER	232B	46.097	39.447	72.898	1.00	40.68	B
	ATOM	1196	C	SER	232B	47.471	41.576	71.462	1.00	41.72	B
	ATOM	1197	O	SER	232B	46.448	42.248	71.569	1.00	43.25	B
	ATOM	1198	N	CYS	233B	48.673	42.052	71.755	1.00	42.19	B
	ATOM	1199	CA	CYS	233B	48.862	43.428	72.194	1.00	40.50	B
35	ATOM	1200	CB	CYS	233B	50.361	43.707	72.300	1.00	42.98	B
	ATOM	1201	SG	CYS	233B	51.329	42.748	71.100	1.00	41.32	B
	ATOM	1202	C	CYS	233B	48.201	44.390	71.191	1.00	39.65	B
	ATOM	1203	O	CYS	233B	47.454	45.285	71.583	1.00	37.33	B
	ATOM	1204	N	TYR	234B	48.468	44.188	69.899	1.00	37.54	B
40	ATOM	1205	CA	TYR	234B	47.897	45.042	68.854	1.00	35.94	B
	ATOM	1206	CB	TYR	234B	48.205	44.495	67.459	1.00	34.56	B
	ATOM	1207	CG	TYR	234B	47.537	43.169	67.175	1.00	35.07	B
	ATOM	1208	CD1	TYR	234B	48.100	41.971	67.623	1.00	33.43	B
	ATOM	1209	CE1	TYR	234B	47.478	40.747	67.385	1.00	34.92	B
45	ATOM	1210	CD2	TYR	234B	46.330	43.111	66.481	1.00	32.02	B
	ATOM	1211	CE2	TYR	234B	45.697	41.892	66.239	1.00	34.50	B
	ATOM	1212	CZ	TYR	234B	46.278	40.713	66.692	1.00	34.27	B
	ATOM	1213	OH	TYR	234B	45.668	39.507	66.449	1.00	32.28	B
	ATOM	1214	C	TYR	234B	46.389	45.139	68.995	1.00	35.98	B
50	ATOM	1215	O	TYR	234B	45.780	46.150	68.645	1.00	36.04	B
	ATOM	1216	N	SER	235B	45.794	44.071	69.507	1.00	36.62	B
	ATOM	1217	CA	SER	235B	44.357	43.999	69.693	1.00	36.30	B
	ATOM	1218	CB	SER	235B	43.955	42.557	69.984	1.00	38.72	B
	ATOM	1219	OG	SER	235B	42.549	42.425	69.990	1.00	44.86	B
55	ATOM	1220	C	SER	235B	43.879	44.910	70.822	1.00	37.25	B
	ATOM	1221	O	SER	235B	42.892	45.628	70.665	1.00	38.20	B
	ATOM	1222	N	PHE	236B	44.567	44.886	71.962	1.00	36.37	B
	ATOM	1223	CA	PHE	236B	44.165	45.728	73.081	1.00	34.77	B
	ATOM	1224	CB	PHE	236B	44.866	45.294	74.368	1.00	33.54	B

	ATOM	1225	CG	PHE	236B	44.427	43.952	74.853	1.00	34.69	B
	ATOM	1226	CD1	PHE	236B	44.980	42.793	74.322	1.00	32.82	B
	ATOM	1227	CD2	PHE	236B	43.407	43.841	75.792	1.00	34.50	B
	ATOM	1228	CE1	PHE	236B	44.520	41.545	74.717	1.00	34.84	B
5	ATOM	1229	CE2	PHE	236B	42.938	42.599	76.195	1.00	34.89	B
	ATOM	1230	CZ	PHE	236B	43.493	41.447	75.657	1.00	36.26	B
	ATOM	1231	C	PHE	236B	44.448	47.186	72.793	1.00	34.90	B
	ATOM	1232	O	PHE	236B	43.674	48.062	73.177	1.00	35.45	B
	ATOM	1233	N	ALA	237B	45.557	47.445	72.111	1.00	34.54	B
10	ATOM	1234	CA	ALA	237B	45.915	48.807	71.757	1.00	35.52	B
	ATOM	1235	CB	ALA	237B	47.287	48.836	71.069	1.00	34.83	B
	ATOM	1236	C	ALA	237B	44.835	49.373	70.828	1.00	34.13	B
	ATOM	1237	O	ALA	237B	44.380	50.500	71.016	1.00	35.56	B
	ATOM	1238	N	SER	238B	44.421	48.577	69.844	1.00	33.20	B
15	ATOM	1239	CA	SER	238B	43.391	48.989	68.886	1.00	33.60	B
	ATOM	1240	CB	SER	238B	43.182	47.909	67.817	1.00	30.65	B
	ATOM	1241	OG	SER	238B	44.243	47.879	66.885	1.00	31.67	B
	ATOM	1242	C	SER	238B	42.051	49.291	69.545	1.00	34.05	B
	ATOM	1243	O	SER	238B	41.506	50.378	69.389	1.00	35.64	B
20	ATOM	1244	N	LEU	239B	41.517	48.320	70.278	1.00	35.05	B
	ATOM	1245	CA	LEU	239B	40.239	48.495	70.945	1.00	35.33	B
	ATOM	1246	CB	LEU	239B	39.727	47.146	71.456	1.00	37.23	B
	ATOM	1247	CG	LEU	239B	39.649	46.039	70.397	1.00	38.11	B
	ATOM	1248	CD1	LEU	239B	39.126	44.766	71.049	1.00	39.42	B
25	ATOM	1249	CD2	LEU	239B	38.738	46.464	69.245	1.00	38.19	B
	ATOM	1250	C	LEU	239B	40.332	49.503	72.086	1.00	35.06	B
	ATOM	1251	O	LEU	239B	39.357	50.194	72.389	1.00	36.37	B
	ATOM	1252	N	GLY	240B	41.498	49.587	72.721	1.00	34.28	B
	ATOM	1253	CA	GLY	240B	41.676	50.553	73.793	1.00	33.64	B
30	ATOM	1254	C	GLY	240B	41.493	51.969	73.260	1.00	33.90	B
	ATOM	1255	O	GLY	240B	40.995	52.850	73.959	1.00	33.47	B
	ATOM	1256	N	MET	241B	41.894	52.194	72.013	1.00	33.16	B
	ATOM	1257	CA	MET	241B	41.750	53.512	71.404	1.00	33.25	B
	ATOM	1258	CB	MET	241B	42.583	53.610	70.118	1.00	32.59	B
35	ATOM	1259	CG	MET	241B	42.174	54.744	69.184	1.00	31.55	B
	ATOM	1260	SD	MET	241B	43.480	55.252	68.050	1.00	32.58	B
	ATOM	1261	CE	MET	241B	43.521	53.868	66.901	1.00	29.63	B
	ATOM	1262	C	MET	241B	40.282	53.786	71.101	1.00	32.66	B
	ATOM	1263	O	MET	241B	39.748	54.838	71.469	1.00	32.42	B
40	ATOM	1264	N	LEU	242B	39.634	52.830	70.437	1.00	33.83	B
	ATOM	1265	CA	LEU	242B	38.224	52.964	70.090	1.00	33.05	B
	ATOM	1266	CB	LEU	242B	37.738	51.718	69.342	1.00	31.47	B
	ATOM	1267	CG	LEU	242B	38.467	51.314	68.052	1.00	33.85	B
	ATOM	1268	CD1	LEU	242B	37.704	50.180	67.390	1.00	28.79	B
45	ATOM	1269	CD2	LEU	242B	38.592	52.502	67.103	1.00	29.04	B
	ATOM	1270	C	LEU	242B	37.375	53.180	71.345	1.00	33.49	B
	ATOM	1271	O	LEU	242B	36.452	53.990	71.346	1.00	36.52	B
	ATOM	1272	N	GLU	243B	37.695	52.459	72.414	1.00	33.68	B
	ATOM	1273	CA	GLU	243B	36.959	52.576	73.670	1.00	32.57	B
50	ATOM	1274	CB	GLU	243B	37.486	51.545	74.687	1.00	33.66	B
	ATOM	1275	CG	GLU	243B	37.009	50.120	74.459	1.00	31.17	B
	ATOM	1276	CD	GLU	243B	37.906	49.086	75.131	1.00	31.74	B
	ATOM	1277	OE1	GLU	243B	38.845	49.479	75.851	1.00	34.62	B
	ATOM	1278	OE2	GLU	243B	37.675	47.876	74.933	1.00	30.05	B
55	ATOM	1279	C	GLU	243B	37.044	53.978	74.270	1.00	30.97	B
	ATOM	1280	O	GLU	243B	36.032	54.563	74.652	1.00	31.14	B
	ATOM	1281	N	ALA	244B	38.259	54.508	74.357	1.00	30.76	B
	ATOM	1282	CA	ALA	244B	38.483	55.834	74.918	1.00	30.99	B
	ATOM	1283	CB	ALA	244B	39.977	56.070	75.124	1.00	29.53	B

	ATOM	1284	C	ALA	244B	37.901	56.927	74.036	1.00	32.41	B
	ATOM	1285	O	ALA	244B	37.258	57.854	74.528	1.00	32.44	B
	ATOM	1286	N	ARG	245B	38.126	56.823	72.731	1.00	33.23	B
	ATOM	1287	CA	ARG	245B	37.615	57.832	71.819	1.00	34.32	B
5	ATOM	1288	CB	ARG	245B	38.203	57.634	70.417	1.00	35.13	B
	ATOM	1289	CG	ARG	245B	39.677	57.976	70.398	1.00	32.94	B
	ATOM	1290	CD	ARG	245B	40.280	58.054	69.025	1.00	30.12	B
	ATOM	1291	NE	ARG	245B	41.576	58.714	69.112	1.00	31.14	B
	ATOM	1292	CZ	ARG	245B	42.251	59.200	68.076	1.00	30.36	B
10	ATOM	1293	NH1	ARG	245B	41.750	59.095	66.853	1.00	30.84	B
	ATOM	1294	NH2	ARG	245B	43.413	59.803	68.270	1.00	25.87	B
	ATOM	1295	C	ARG	245B	36.094	57.869	71.787	1.00	34.50	B
	ATOM	1296	O	ARG	245B	35.512	58.934	71.592	1.00	36.16	B
	ATOM	1297	N	ILE	246B	35.452	56.715	71.986	1.00	35.58	B
15	ATOM	1298	CA	ILE	246B	33.990	56.659	72.017	1.00	36.15	B
	ATOM	1299	CB	ILE	246B	33.457	55.200	72.016	1.00	35.74	B
	ATOM	1300	CG2	ILE	246B	32.005	55.179	72.465	1.00	36.50	B
	ATOM	1301	CG1	ILE	246B	33.572	54.594	70.613	1.00	34.53	B
	ATOM	1302	CD	ILE	246B	33.135	53.148	70.511	1.00	29.62	B
20	ATOM	1303	C	ILE	246B	33.493	57.360	73.283	1.00	36.79	B
	ATOM	1304	O	ILE	246B	32.474	58.048	73.262	1.00	40.05	B
	ATOM	1305	N	ARG	247B	34.218	57.197	74.384	1.00	36.03	B
	ATOM	1306	CA	ARG	247B	33.827	57.839	75.634	1.00	37.14	B
	ATOM	1307	CB	ARG	247B	34.648	57.268	76.798	1.00	34.99	B
25	ATOM	1308	CG	ARG	247B	34.338	55.799	77.041	1.00	38.47	B
	ATOM	1309	CD	ARG	247B	35.153	55.178	78.147	1.00	39.66	B
	ATOM	1310	NE	ARG	247B	35.103	55.993	79.359	1.00	44.64	B
	ATOM	1311	CZ	ARG	247B	35.284	55.523	80.593	1.00	45.25	B
	ATOM	1312	NH1	ARG	247B	35.522	54.223	80.796	1.00	41.13	B
30	ATOM	1313	NH2	ARG	247B	35.246	56.367	81.622	1.00	44.13	B
	ATOM	1314	C	ARG	247B	33.973	59.356	75.552	1.00	37.30	B
	ATOM	1315	O	ARG	247B	33.146	60.096	76.083	1.00	38.63	B
	ATOM	1316	N	ILE	248B	35.024	59.819	74.882	1.00	37.61	B
	ATOM	1317	CA	ILE	248B	35.257	61.250	74.724	1.00	34.20	B
35	ATOM	1318	CB	ILE	248B	36.628	61.504	74.064	1.00	34.87	B
	ATOM	1319	CG2	ILE	248B	36.745	62.962	73.593	1.00	30.39	B
	ATOM	1320	CG1	ILE	248B	37.741	61.147	75.050	1.00	33.54	B
	ATOM	1321	CD	ILE	248B	39.129	61.147	74.430	1.00	32.70	B
	ATOM	1322	C	ILE	248B	34.145	61.845	73.855	1.00	34.13	B
40	ATOM	1323	O	ILE	248B	33.544	62.859	74.198	1.00	34.59	B
	ATOM	1324	N	LEU	249B	33.872	61.202	72.730	1.00	33.48	B
	ATOM	1325	CA	LEU	249B	32.833	61.674	71.829	1.00	35.02	B
	ATOM	1326	CB	LEU	249B	32.716	60.738	70.625	1.00	32.81	B
	ATOM	1327	CG	LEU	249B	33.789	60.897	69.556	1.00	34.17	B
45	ATOM	1328	CD1	LEU	249B	33.743	59.711	68.593	1.00	35.29	B
	ATOM	1329	CD2	LEU	249B	33.570	62.216	68.823	1.00	33.80	B
	ATOM	1330	C	LEU	249B	31.466	61.791	72.491	1.00	34.98	B
	ATOM	1331	O	LEU	249B	30.671	62.642	72.114	1.00	33.73	B
	ATOM	1332	N	THR	250B	31.201	60.939	73.478	1.00	37.08	B
50	ATOM	1333	CA	THR	250B	29.902	60.933	74.154	1.00	37.61	B
	ATOM	1334	CB	THR	250B	29.273	59.524	74.132	1.00	37.11	B
	ATOM	1335	OG1	THR	250B	30.097	58.622	74.884	1.00	36.65	B
	ATOM	1336	CG2	THR	250B	29.141	59.015	72.704	1.00	36.33	B
	ATOM	1337	C	THR	250B	29.878	61.410	75.604	1.00	38.26	B
55	ATOM	1338	O	THR	250B	28.939	61.095	76.331	1.00	39.23	B
	ATOM	1339	N	ASN	251B	30.880	62.170	76.027	1.00	38.20	B
	ATOM	1340	CA	ASN	251B	30.917	62.658	77.411	1.00	40.89	B
	ATOM	1341	CB	ASN	251B	29.831	63.727	77.632	1.00	41.99	B
	ATOM	1342	CG	ASN	251B	30.011	64.490	78.945	1.00	41.17	B

	ATOM	1343	OD1	ASN	251B	31.115	64.937	79.260	1.00	42.48	B
	ATOM	1344	ND2	ASN	251B	28.925	64.659	79.699	1.00	39.33	B
	ATOM	1345	C	ASN	251B	30.711	61.509	78.408	1.00	41.52	B
	ATOM	1346	O	ASN	251B	30.197	61.717	79.502	1.00	41.68	B
5	ATOM	1347	N	ASN	252B	31.110	60.304	77.998	1.00	42.04	B
	ATOM	1348	CA	ASN	252B	31.009	59.087	78.798	1.00	43.76	B
	ATOM	1349	CB	ASN	252B	31.532	59.316	80.220	1.00	42.25	B
	ATOM	1350	CG	ASN	252B	33.043	59.265	80.300	1.00	43.43	B
	ATOM	1351	OD1	ASN	252B	33.676	58.330	79.799	1.00	42.52	B
10	ATOM	1352	ND2	ASN	252B	33.629	60.261	80.942	1.00	43.01	B
	ATOM	1353	C	ASN	252B	29.644	58.424	78.884	1.00	43.90	B
	ATOM	1354	O	ASN	252B	29.436	57.573	79.739	1.00	46.86	B
	ATOM	1355	N	SER	253B	28.716	58.793	78.012	1.00	43.67	B
	ATOM	1356	CA	SER	253B	27.390	58.184	78.033	1.00	43.23	B
15	ATOM	1357	CB	SER	253B	26.443	58.942	77.109	1.00	43.01	B
	ATOM	1358	OG	SER	253B	26.875	58.826	75.769	1.00	48.46	B
	ATOM	1359	C	SER	253B	27.551	56.768	77.515	1.00	42.75	B
	ATOM	1360	O	SER	253B	26.719	55.891	77.769	1.00	43.07	B
	ATOM	1361	N	GLN	254B	28.618	56.564	76.753	1.00	41.24	B
20	ATOM	1362	CA	GLN	254B	28.913	55.260	76.190	1.00	40.47	B
	ATOM	1363	CB	GLN	254B	28.840	55.310	74.659	1.00	39.86	B
	ATOM	1364	CG	GLN	254B	27.429	55.389	74.083	1.00	39.59	B
	ATOM	1365	CD	GLN	254B	27.406	55.372	72.545	1.00	40.96	B
	ATOM	1366	OE1	GLN	254B	28.117	54.590	71.907	1.00	38.99	B
25	ATOM	1367	NE2	GLN	254B	26.571	56.228	71.952	1.00	39.49	B
	ATOM	1368	C	GLN	254B	30.308	54.827	76.644	1.00	40.23	B
	ATOM	1369	O	GLN	254B	31.306	55.475	76.327	1.00	36.25	B
	ATOM	1370	N	THR	255B	30.354	53.734	77.400	1.00	40.44	B
	ATOM	1371	CA	THR	255B	31.601	53.178	77.911	1.00	39.61	B
30	ATOM	1372	CB	THR	255B	31.680	53.319	79.438	1.00	38.79	B
	ATOM	1373	OG1	THR	255B	30.544	52.676	80.032	1.00	41.88	B
	ATOM	1374	CG2	THR	255B	31.676	54.778	79.832	1.00	38.07	B
	ATOM	1375	C	THR	255B	31.687	51.699	77.545	1.00	39.15	B
	ATOM	1376	O	THR	255B	31.862	50.836	78.409	1.00	39.23	B
35	ATOM	1377	N	PRO	256B	31.562	51.384	76.248	1.00	39.56	B
	ATOM	1378	CD	PRO	256B	31.509	52.259	75.063	1.00	39.44	B
	ATOM	1379	CA	PRO	256B	31.636	49.981	75.844	1.00	39.37	B
	ATOM	1380	CB	PRO	256B	31.252	50.036	74.369	1.00	39.42	B
	ATOM	1381	CG	PRO	256B	31.901	51.305	73.935	1.00	39.85	B
40	ATOM	1382	C	PRO	256B	33.035	49.406	76.046	1.00	38.85	B
	ATOM	1383	O	PRO	256B	34.033	50.134	76.034	1.00	36.74	B
	ATOM	1384	N	ILE	257B	33.085	48.094	76.252	1.00	37.73	B
	ATOM	1385	CA	ILE	257B	34.330	47.359	76.418	1.00	35.82	B
	ATOM	1386	CB	ILE	257B	34.333	46.562	77.751	1.00	35.81	B
45	ATOM	1387	CG2	ILE	257B	35.559	45.667	77.832	1.00	33.85	B
	ATOM	1388	CG1	ILE	257B	34.297	47.528	78.935	1.00	31.78	B
	ATOM	1389	CD	ILE	257B	35.512	48.428	79.039	1.00	32.99	B
	ATOM	1390	C	ILE	257B	34.276	46.420	75.221	1.00	35.79	B
	ATOM	1391	O	ILE	257B	33.354	45.609	75.110	1.00	38.00	B
50	ATOM	1392	N	LEU	258B	35.241	46.546	74.314	1.00	36.82	B
	ATOM	1393	CA	LEU	258B	35.245	45.736	73.095	1.00	38.72	B
	ATOM	1394	CB	LEU	258B	35.825	46.565	71.938	1.00	37.33	B
	ATOM	1395	CG	LEU	258B	35.149	47.939	71.769	1.00	39.49	B
	ATOM	1396	CD1	LEU	258B	35.759	48.693	70.589	1.00	37.05	B
55	ATOM	1397	CD2	LEU	258B	33.650	47.764	71.567	1.00	35.75	B
	ATOM	1398	C	LEU	258B	35.952	44.383	73.212	1.00	38.49	B
	ATOM	1399	O	LEU	258B	36.693	44.142	74.162	1.00	39.93	B
	ATOM	1400	N	SER	259B	35.717	43.508	72.235	1.00	37.65	B
	ATOM	1401	CA	SER	259B	36.273	42.163	72.250	1.00	37.40	B

100

	ATOM	1402	CB	SER	259B	35.213	41.169	71.773	1.00	38.21	B
	ATOM	1403	OG	SER	259B	35.817	39.959	71.332	1.00	39.72	B
	ATOM	1404	C	SER	259B	37.560	41.870	71.498	1.00	38.11	B
	ATOM	1405	O	SER	259B	37.559	41.742	70.268	1.00	38.13	B
5	ATOM	1406	N	PRO	260B	38.683	41.744	72.231	1.00	37.88	B
	ATOM	1407	CD	PRO	260B	38.890	42.059	73.654	1.00	37.21	B
	ATOM	1408	CA	PRO	260B	39.959	41.447	71.575	1.00	37.33	B
	ATOM	1409	CB	PRO	260B	40.981	41.632	72.693	1.00	36.12	B
	ATOM	1410	CG	PRO	260B	40.185	41.356	73.933	1.00	39.26	B
10	ATOM	1411	C	PRO	260B	39.955	40.028	71.022	1.00	36.98	B
	ATOM	1412	O	PRO	260B	40.646	39.733	70.048	1.00	36.95	B
	ATOM	1413	N	GLN	261B	39.157	39.157	71.636	1.00	37.04	B
	ATOM	1414	CA	GLN	261B	39.076	37.767	71.204	1.00	36.28	B
	ATOM	1415	CB	GLN	261B	38.251	36.945	72.199	1.00	37.22	B
15	ATOM	1416	CG	GLN	261B	38.297	35.444	71.946	1.00	35.67	B
	ATOM	1417	CD	GLN	261B	39.715	34.891	72.029	1.00	38.33	B
	ATOM	1418	OE1	GLN	261B	40.386	35.034	73.052	1.00	37.23	B
	ATOM	1419	NE2	GLN	261B	40.177	34.262	70.948	1.00	36.15	B
	ATOM	1420	C	GLN	261B	38.461	37.658	69.812	1.00	38.10	B
20	ATOM	1421	O	GLN	261B	38.872	36.819	69.006	1.00	39.34	B
	ATOM	1422	N	GLU	262B	37.469	38.502	69.537	1.00	38.49	B
	ATOM	1423	CA	GLU	262B	36.802	38.510	68.241	1.00	37.34	B
	ATOM	1424	CB	GLU	262B	35.656	39.531	68.266	1.00	39.14	B
	ATOM	1425	CG	GLU	262B	34.746	39.561	67.032	1.00	40.48	B
25	ATOM	1426	CD	GLU	262B	35.389	40.213	65.810	1.00	39.27	B
	ATOM	1427	OE1	GLU	262B	36.156	41.187	65.967	1.00	40.06	B
	ATOM	1428	OE2	GLU	262B	35.109	39.760	64.687	1.00	41.49	B
	ATOM	1429	C	GLU	262B	37.844	38.858	67.176	1.00	36.93	B
	ATOM	1430	O	GLU	262B	37.847	38.288	66.084	1.00	38.01	B
30	ATOM	1431	N	VAL	263B	38.751	39.770	67.516	1.00	36.20	B
	ATOM	1432	CA	VAL	263B	39.820	40.186	66.599	1.00	36.69	B
	ATOM	1433	CB	VAL	263B	40.568	41.442	67.136	1.00	33.82	B
	ATOM	1434	CG1	VAL	263B	41.757	41.760	66.265	1.00	32.74	B
	ATOM	1435	CG2	VAL	263B	39.626	42.623	67.182	1.00	31.82	B
35	ATOM	1436	C	VAL	263B	40.834	39.060	66.401	1.00	37.84	B
	ATOM	1437	O	VAL	263B	41.258	38.776	65.275	1.00	40.14	B
	ATOM	1438	N	VAL	264B	41.217	38.420	67.502	1.00	38.18	B
	ATOM	1439	CA	VAL	264B	42.178	37.326	67.462	1.00	36.98	B
	ATOM	1440	CB	VAL	264B	42.538	36.863	68.897	1.00	36.34	B
40	ATOM	1441	CG1	VAL	264B	43.253	35.514	68.861	1.00	35.48	B
	ATOM	1442	CG2	VAL	264B	43.432	37.905	69.561	1.00	34.31	B
	ATOM	1443	C	VAL	264B	41.664	36.133	66.664	1.00	37.72	B
	ATOM	1444	O	VAL	264B	42.376	35.583	65.827	1.00	38.02	B
	ATOM	1445	N	SER	265B	40.418	35.749	66.908	1.00	38.76	B
45	ATOM	1446	CA	SER	265B	39.837	34.594	66.234	1.00	41.55	B
	ATOM	1447	CB	SER	265B	38.776	33.946	67.132	1.00	41.67	B
	ATOM	1448	OG	SER	265B	39.318	33.559	68.388	1.00	44.06	B
	ATOM	1449	C	SER	265B	39.217	34.837	64.861	1.00	43.21	B
	ATOM	1450	O	SER	265B	39.243	33.954	64.007	1.00	44.21	B
50	ATOM	1451	N	CYS	266B	38.670	36.026	64.633	1.00	44.13	B
	ATOM	1452	CA	CYS	266B	37.994	36.291	63.369	1.00	44.73	B
	ATOM	1453	C	CYS	266B	38.637	37.193	62.319	1.00	44.19	B
	ATOM	1454	O	CYS	266B	38.329	37.064	61.129	1.00	44.18	B
	ATOM	1455	CB	CYS	266B	36.611	36.841	63.667	1.00	46.49	B
55	ATOM	1456	SG	CYS	266B	35.660	35.881	64.886	1.00	51.76	B
	ATOM	1457	N	SER	267B	39.505	38.111	62.730	1.00	41.96	B
	ATOM	1458	CA	SER	267B	40.098	39.015	61.753	1.00	40.12	B
	ATOM	1459	CB	SER	267B	40.720	40.219	62.445	1.00	39.92	B
	ATOM	1460	OG	SER	267B	41.246	41.102	61.474	1.00	40.81	B

	ATOM	1461	C	SER	267B	41.128	38.418	60.804	1.00	38.99	B
	ATOM	1462	O	SER	267B	42.086	37.780	61.229	1.00	39.65	B
	ATOM	1463	N	PRO	268B	40.933	38.621	59.490	1.00	38.44	B
	ATOM	1464	CD	PRO	268B	39.659	39.069	58.904	1.00	37.65	B
5	ATOM	1465	CA	PRO	268B	41.833	38.125	58.442	1.00	35.89	B
	ATOM	1466	CB	PRO	268B	40.943	38.071	57.201	1.00	36.08	B
	ATOM	1467	CG	PRO	268B	39.544	38.156	57.725	1.00	37.44	B
	ATOM	1468	C	PRO	268B	42.986	39.107	58.233	1.00	35.37	B
	ATOM	1469	O	PRO	268B	43.948	38.812	57.525	1.00	36.17	B
10	ATOM	1470	N	TYR	269B	42.868	40.279	58.850	1.00	35.01	B
	ATOM	1471	CA	TYR	269B	43.872	41.334	58.724	1.00	35.51	B
	ATOM	1472	CB	TYR	269B	43.188	42.711	58.804	1.00	34.09	B
	ATOM	1473	CG	TYR	269B	42.152	42.964	57.722	1.00	31.19	B
	ATOM	1474	CD1	TYR	269B	41.151	43.925	57.900	1.00	33.14	B
15	ATOM	1475	CE1	TYR	269B	40.202	44.174	56.907	1.00	30.62	B
	ATOM	1476	CD2	TYR	269B	42.177	42.254	56.516	1.00	33.10	B
	ATOM	1477	CE2	TYR	269B	41.237	42.491	55.517	1.00	31.98	B
	ATOM	1478	CZ	TYR	269B	40.252	43.452	55.719	1.00	35.23	B
	ATOM	1479	OH	TYR	269B	39.313	43.674	54.740	1.00	35.61	B
20	ATOM	1480	C	TYR	269B	44.976	41.234	59.777	1.00	37.76	B
	ATOM	1481	O	TYR	269B	45.902	42.041	59.792	1.00	36.54	B
	ATOM	1482	N	ALA	270B	44.873	40.240	60.655	1.00	39.38	B
	ATOM	1483	CA	ALA	270B	45.875	40.028	61.694	1.00	41.06	B
	ATOM	1484	CB	ALA	270B	45.357	40.538	63.044	1.00	36.90	B
25	ATOM	1485	C	ALA	270B	46.201	38.532	61.769	1.00	42.23	B
	ATOM	1486	O	ALA	270B	45.557	37.719	61.103	1.00	42.39	B
	ATOM	1487	N	GLN	271B	47.202	38.171	62.568	1.00	42.82	B
	ATOM	1488	CA	GLN	271B	47.589	36.765	62.709	1.00	42.42	B
	ATOM	1489	CB	GLN	271B	49.090	36.594	62.443	1.00	41.11	B
30	ATOM	1490	CG	GLN	271B	49.509	36.775	60.992	1.00	41.38	B
	ATOM	1491	CD	GLN	271B	49.302	38.191	60.485	1.00	43.54	B
	ATOM	1492	OE1	GLN	271B	49.796	39.151	61.073	1.00	43.51	B
	ATOM	1493	NE2	GLN	271B	48.573	38.326	59.378	1.00	45.29	B
	ATOM	1494	C	GLN	271B	47.258	36.174	64.079	1.00	41.04	B
35	ATOM	1495	O	GLN	271B	48.098	35.521	64.676	1.00	42.09	B
	ATOM	1496	N	GLY	272B	46.043	36.404	64.568	1.00	41.01	B
	ATOM	1497	CA	GLY	272B	45.639	35.867	65.859	1.00	41.41	B
	ATOM	1498	C	GLY	272B	46.596	36.173	67.002	1.00	42.42	B
	ATOM	1499	O	GLY	272B	46.959	37.323	67.213	1.00	44.08	B
40	ATOM	1500	N	CYS	273B	47.003	35.148	67.749	1.00	42.70	B
	ATOM	1501	CA	CYS	273B	47.926	35.344	68.869	1.00	42.29	B
	ATOM	1502	C	CYS	273B	49.346	35.518	68.376	1.00	40.99	B
	ATOM	1503	O	CYS	273B	50.274	35.716	69.163	1.00	38.45	B
	ATOM	1504	CB	CYS	273B	47.877	34.162	69.844	1.00	42.74	B
45	ATOM	1505	SG	CYS	273B	46.389	34.154	70.891	1.00	44.12	B
	ATOM	1506	N	ASP	274B	49.513	35.470	67.063	1.00	39.75	B
	ATOM	1507	CA	ASP	274B	50.829	35.620	66.496	1.00	40.44	B
	ATOM	1508	CB	ASP	274B	51.021	34.578	65.397	1.00	45.10	B
	ATOM	1509	CG	ASP	274B	51.303	33.201	65.965	1.00	47.73	B
50	ATOM	1510	OD1	ASP	274B	52.385	33.037	66.567	1.00	49.54	B
	ATOM	1511	OD2	ASP	274B	50.447	32.295	65.834	1.00	50.45	B
	ATOM	1512	C	ASP	274B	51.155	37.022	66.001	1.00	40.95	B
	ATOM	1513	O	ASP	274B	52.035	37.206	65.155	1.00	39.38	B
	ATOM	1514	N	GLY	275B	50.446	38.015	66.535	1.00	40.80	B
55	ATOM	1515	CA	GLY	275B	50.726	39.388	66.155	1.00	42.71	B
	ATOM	1516	C	GLY	275B	49.785	40.094	65.194	1.00	43.28	B
	ATOM	1517	O	GLY	275B	48.968	39.476	64.498	1.00	43.35	B
	ATOM	1518	N	GLY	276B	49.921	41.416	65.161	1.00	42.77	B
	ATOM	1519	CA	GLY	276B	49.095	42.243	64.303	1.00	40.83	B

	ATOM	1520	C	GLY	276B	49.441	43.716	64.429	1.00	40.58	B
	ATOM	1521	O	GLY	276B	50.347	44.113	65.186	1.00	37.62	B
	ATOM	1522	N	PHE	277B	48.700	44.539	63.693	1.00	39.12	B
	ATOM	1523	CA	PHE	277B	48.944	45.974	63.700	1.00	37.84	B
5	ATOM	1524	CB	PHE	277B	49.771	46.341	62.468	1.00	34.99	B
	ATOM	1525	CG	PHE	277B	51.130	45.710	62.470	1.00	37.51	B
	ATOM	1526	CD1	PHE	277B	52.204	46.333	63.110	1.00	37.58	B
	ATOM	1527	CD2	PHE	277B	51.322	44.438	61.922	1.00	37.52	B
	ATOM	1528	CE1	PHE	277B	53.445	45.694	63.207	1.00	37.51	B
10	ATOM	1529	CE2	PHE	277B	52.553	43.794	62.016	1.00	34.66	B
	ATOM	1530	CZ	PHE	277B	53.613	44.420	62.658	1.00	37.24	B
	ATOM	1531	C	PHE	277B	47.676	46.819	63.772	1.00	36.81	B
	ATOM	1532	O	PHE	277B	46.718	46.605	63.027	1.00	35.89	B
	ATOM	1533	N	PRO	278B	47.664	47.793	64.689	1.00	34.80	B
15	ATOM	1534	CD	PRO	278B	48.741	48.081	65.652	1.00	32.65	B
	ATOM	1535	CA	PRO	278B	46.532	48.698	64.889	1.00	33.98	B
	ATOM	1536	CB	PRO	278B	47.132	49.789	65.762	1.00	32.52	B
	ATOM	1537	CG	PRO	278B	48.055	48.994	66.644	1.00	34.07	B
	ATOM	1538	C	PRO	278B	45.934	49.244	63.589	1.00	33.61	B
20	ATOM	1539	O	PRO	278B	44.714	49.224	63.412	1.00	34.87	B
	ATOM	1540	N	TYR	279B	46.781	49.715	62.679	1.00	32.40	B
	ATOM	1541	CA	TYR	279B	46.285	50.269	61.422	1.00	33.33	B
	ATOM	1542	CB	TYR	279B	47.431	50.538	60.444	1.00	31.83	B
	ATOM	1543	CG	TYR	279B	46.990	51.221	59.162	1.00	29.53	B
25	ATOM	1544	CD1	TYR	279B	47.038	52.606	59.041	1.00	30.23	B
	ATOM	1545	CE1	TYR	279B	46.660	53.244	57.856	1.00	29.19	B
	ATOM	1546	CD2	TYR	279B	46.544	50.483	58.064	1.00	28.64	B
	ATOM	1547	CE2	TYR	279B	46.164	51.112	56.871	1.00	28.57	B
	ATOM	1548	CZ	TYR	279B	46.229	52.494	56.779	1.00	31.12	B
30	ATOM	1549	OH	TYR	279B	45.879	53.138	55.617	1.00	32.16	B
	ATOM	1550	C	TYR	279B	45.282	49.336	60.753	1.00	33.38	B
	ATOM	1551	O	TYR	279B	44.286	49.789	60.191	1.00	32.71	B
	ATOM	1552	N	LEU	280B	45.556	48.036	60.808	1.00	33.56	B
	ATOM	1553	CA	LEU	280B	44.678	47.046	60.196	1.00	32.72	B
35	ATOM	1554	CB	LEU	280B	45.494	45.833	59.737	1.00	30.95	B
	ATOM	1555	CG	LEU	280B	46.380	46.080	58.510	1.00	33.52	B
	ATOM	1556	CD1	LEU	280B	47.377	44.945	58.351	1.00	30.68	B
	ATOM	1557	CD2	LEU	280B	45.520	46.230	57.264	1.00	27.93	B
	ATOM	1558	C	LEU	280B	43.540	46.586	61.094	1.00	32.93	B
40	ATOM	1559	O	LEU	280B	42.588	45.978	60.618	1.00	36.67	B
	ATOM	1560	N	ILE	281B	43.620	46.866	62.388	1.00	33.23	B
	ATOM	1561	CA	ILE	281B	42.551	46.447	63.279	1.00	33.80	B
	ATOM	1562	CB	ILE	281B	43.099	45.692	64.508	1.00	33.20	B
	ATOM	1563	CG2	ILE	281B	41.974	45.391	65.490	1.00	30.45	B
45	ATOM	1564	CG1	ILE	281B	43.749	44.383	64.044	1.00	33.58	B
	ATOM	1565	CD	ILE	281B	42.831	43.507	63.177	1.00	31.12	B
	ATOM	1566	C	ILE	281B	41.679	47.611	63.724	1.00	35.77	B
	ATOM	1567	O	ILE	281B	40.484	47.640	63.422	1.00	37.82	B
	ATOM	1568	N	ALA	282B	42.263	48.565	64.441	1.00	35.65	B
50	ATOM	1569	CA	ALA	282B	41.511	49.735	64.890	1.00	34.08	B
	ATOM	1570	CB	ALA	282B	42.393	50.630	65.744	1.00	31.21	B
	ATOM	1571	C	ALA	282B	41.031	50.499	63.655	1.00	32.63	B
	ATOM	1572	O	ALA	282B	40.011	51.168	63.687	1.00	29.37	B
	ATOM	1573	N	GLY	283B	41.785	50.377	62.567	1.00	32.26	B
55	ATOM	1574	CA	GLY	283B	41.435	51.057	61.339	1.00	31.03	B
	ATOM	1575	C	GLY	283B	40.656	50.206	60.362	1.00	32.97	B
	ATOM	1576	O	GLY	283B	39.432	50.131	60.448	1.00	35.49	B
	ATOM	1577	N	LYS	284B	41.370	49.539	59.456	1.00	33.10	B
	ATOM	1578	CA	LYS	284B	40.757	48.718	58.414	1.00	33.40	B

	ATOM	1579	CB	LYS	284B	41.832	48.051	57.559	1.00	33.97	B
	ATOM	1580	CG	LYS	284B	41.288	47.538	56.247	1.00	34.36	B
	ATOM	1581	CD	LYS	284B	42.391	47.105	55.303	1.00	34.63	B
	ATOM	1582	CE	LYS	284B	41.804	46.817	53.944	1.00	33.62	B
5	ATOM	1583	NZ	LYS	284B	41.070	48.015	53.456	1.00	30.96	B
	ATOM	1584	C	LYS	284B	39.750	47.664	58.844	1.00	35.20	B
	ATOM	1585	O	LYS	284B	38.662	47.577	58.272	1.00	35.09	B
	ATOM	1586	N	TYR	285B	40.096	46.852	59.834	1.00	36.42	B
	ATOM	1587	CA	TYR	285B	39.161	45.826	60.273	1.00	34.23	B
10	ATOM	1588	CB	TYR	285B	39.815	44.871	61.271	1.00	36.53	B
	ATOM	1589	CG	TYR	285B	38.915	43.707	61.615	1.00	35.00	B
	ATOM	1590	CD1	TYR	285B	38.215	43.668	62.816	1.00	34.50	B
	ATOM	1591	CE1	TYR	285B	37.333	42.627	63.101	1.00	34.12	B
	ATOM	1592	CD2	TYR	285B	38.717	42.676	60.706	1.00	35.00	B
15	ATOM	1593	CE2	TYR	285B	37.838	41.631	60.982	1.00	36.73	B
	ATOM	1594	CZ	TYR	285B	37.150	41.614	62.179	1.00	35.02	B
	ATOM	1595	OH	TYR	285B	36.280	40.583	62.444	1.00	37.66	B
	ATOM	1596	C	TYR	285B	37.909	46.433	60.889	1.00	32.05	B
	ATOM	1597	O	TYR	285B	36.801	45.971	60.632	1.00	32.50	B
20	ATOM	1598	N	ALA	286B	38.080	47.467	61.701	1.00	30.67	B
	ATOM	1599	CA	ALA	286B	36.937	48.114	62.324	1.00	30.25	B
	ATOM	1600	CB	ALA	286B	37.404	49.158	63.333	1.00	30.48	B
	ATOM	1601	C	ALA	286B	36.044	48.761	61.262	1.00	30.08	B
	ATOM	1602	O	ALA	286B	34.828	48.728	61.370	1.00	31.60	B
25	ATOM	1603	N	GLN	287B	36.647	49.329	60.224	1.00	29.96	B
	ATOM	1604	CA	GLN	287B	35.870	49.962	59.173	1.00	30.93	B
	ATOM	1605	CB	GLN	287B	36.763	50.822	58.269	1.00	31.52	B
	ATOM	1606	CG	GLN	287B	35.977	51.569	57.173	1.00	28.69	B
	ATOM	1607	CD	GLN	287B	36.801	52.626	56.448	1.00	27.66	B
30	ATOM	1608	OE1	GLN	287B	37.519	52.336	55.499	1.00	29.41	B
	ATOM	1609	NE2	GLN	287B	36.699	53.859	56.905	1.00	25.90	B
	ATOM	1610	C	GLN	287B	35.109	48.972	58.302	1.00	32.88	B
	ATOM	1611	O	GLN	287B	33.927	49.167	58.021	1.00	33.05	B
	ATOM	1612	N	ASP	288B	35.789	47.912	57.877	1.00	34.78	B
35	ATOM	1613	CA	ASP	288B	35.187	46.915	56.998	1.00	35.27	B
	ATOM	1614	CB	ASP	288B	36.277	46.103	56.285	1.00	35.40	B
	ATOM	1615	CG	ASP	288B	37.185	46.960	55.426	1.00	36.07	B
	ATOM	1616	OD1	ASP	288B	36.931	48.180	55.293	1.00	34.22	B
	ATOM	1617	OD2	ASP	288B	38.161	46.401	54.878	1.00	38.37	B
40	ATOM	1618	C	ASP	288B	34.220	45.944	57.661	1.00	36.84	B
	ATOM	1619	O	ASP	288B	33.086	45.779	57.199	1.00	38.18	B
	ATOM	1620	N	PHE	289B	34.660	45.298	58.736	1.00	35.88	B
	ATOM	1621	CA	PHE	289B	33.811	44.327	59.405	1.00	35.38	B
	ATOM	1622	CB	PHE	289B	34.561	43.004	59.532	1.00	36.47	B
45	ATOM	1623	CG	PHE	289B	34.981	42.441	58.214	1.00	34.50	B
	ATOM	1624	CD1	PHE	289B	36.292	42.559	57.785	1.00	30.47	B
	ATOM	1625	CD2	PHE	289B	34.034	41.864	57.363	1.00	32.79	B
	ATOM	1626	CE1	PHE	289B	36.658	42.117	56.526	1.00	32.45	B
	ATOM	1627	CE2	PHE	289B	34.388	41.420	56.102	1.00	30.88	B
50	ATOM	1628	CZ	PHE	289B	35.702	41.546	55.678	1.00	32.10	B
	ATOM	1629	C	PHE	289B	33.287	44.761	60.755	1.00	36.83	B
	ATOM	1630	O	PHE	289B	32.283	44.229	61.234	1.00	36.79	B
	ATOM	1631	N	GLY	290B	33.964	45.728	61.366	1.00	36.35	B
	ATOM	1632	CA	GLY	290B	33.529	46.211	62.660	1.00	35.38	B
55	ATOM	1633	C	GLY	290B	33.942	45.297	63.793	1.00	35.17	B
	ATOM	1634	O	GLY	290B	34.288	44.137	63.584	1.00	33.61	B
	ATOM	1635	N	VAL	291B	33.914	45.831	65.004	1.00	34.90	B
	ATOM	1636	CA	VAL	291B	34.283	45.060	66.179	1.00	35.89	B
	ATOM	1637	CB	VAL	291B	35.500	45.704	66.913	1.00	33.89	B

	ATOM	1638	CG1	VAL	291B	36.723	45.656	66.012	1.00	32.52	B
	ATOM	1639	CG2	VAL	291B	35.190	47.131	67.307	1.00	28.67	B
	ATOM	1640	C	VAL	291B	33.078	44.958	67.115	1.00	36.94	B
	ATOM	1641	O	VAL	291B	32.178	45.797	67.076	1.00	38.13	B
5	ATOM	1642	N	VAL	292B	33.061	43.927	67.949	1.00	38.19	B
	ATOM	1643	CA	VAL	292B	31.945	43.704	68.863	1.00	40.35	B
	ATOM	1644	CB	VAL	292B	31.385	42.287	68.668	1.00	38.97	B
	ATOM	1645	CG1	VAL	292B	31.021	42.064	67.198	1.00	39.22	B
	ATOM	1646	CG2	VAL	292B	32.416	41.276	69.091	1.00	39.42	B
10	ATOM	1647	C	VAL	292B	32.346	43.880	70.325	1.00	40.36	B
	ATOM	1648	O	VAL	292B	33.528	43.972	70.651	1.00	41.44	B
	ATOM	1649	N	GLU	293B	31.356	43.924	71.204	1.00	41.38	B
	ATOM	1650	CA	GLU	293B	31.620	44.076	72.631	1.00	43.50	B
	ATOM	1651	CB	GLU	293B	30.331	44.467	73.358	1.00	43.25	B
15	ATOM	1652	CG	GLU	293B	29.919	45.892	73.061	1.00	47.94	B
	ATOM	1653	CD	GLU	293B	28.586	46.292	73.675	1.00	49.86	B
	ATOM	1654	OE1	GLU	293B	28.356	46.002	74.870	1.00	51.82	B
	ATOM	1655	OE2	GLU	293B	27.773	46.923	72.960	1.00	52.30	B
	ATOM	1656	C	GLU	293B	32.201	42.804	73.242	1.00	43.66	B
20	ATOM	1657	O	GLU	293B	32.084	41.713	72.672	1.00	41.20	B
	ATOM	1658	N	GLU	294B	32.837	42.960	74.401	1.00	44.62	B
	ATOM	1659	CA	GLU	294B	33.446	41.839	75.117	1.00	45.81	B
	ATOM	1660	CB	GLU	294B	33.990	42.317	76.469	1.00	47.40	B
	ATOM	1661	CG	GLU	294B	34.617	41.223	77.353	1.00	46.42	B
25	ATOM	1662	CD	GLU	294B	35.868	40.591	76.747	1.00	47.46	B
	ATOM	1663	OE1	GLU	294B	36.496	41.206	75.847	1.00	47.71	B
	ATOM	1664	OE2	GLU	294B	36.234	39.478	77.187	1.00	46.54	B
	ATOM	1665	C	GLU	294B	32.465	40.685	75.349	1.00	45.85	B
	ATOM	1666	O	GLU	294B	32.755	39.545	74.985	1.00	46.09	B
30	ATOM	1667	N	ASN	295B	31.316	40.980	75.958	1.00	45.92	B
	ATOM	1668	CA	ASN	295B	30.310	39.949	76.233	1.00	48.50	B
	ATOM	1669	CB	ASN	295B	28.994	40.566	76.721	1.00	52.82	B
	ATOM	1670	CG	ASN	295B	27.887	39.509	76.906	1.00	56.31	B
	ATOM	1671	OD1	ASN	295B	27.773	38.883	77.970	1.00	58.48	B
35	ATOM	1672	ND2	ASN	295B	27.086	39.296	75.859	1.00	57.52	B
	ATOM	1673	C	ASN	295B	29.994	39.077	75.022	1.00	47.81	B
	ATOM	1674	O	ASN	295B	29.557	37.940	75.170	1.00	48.35	B
	ATOM	1675	N	CYS	296B	30.206	39.608	73.824	1.00	47.38	B
	ATOM	1676	CA	CYS	296B	29.919	38.855	72.613	1.00	45.93	B
40	ATOM	1677	C	CYS	296B	30.936	37.753	72.356	1.00	44.41	B
	ATOM	1678	O	CYS	296B	30.618	36.730	71.743	1.00	45.06	B
	ATOM	1679	CB	CYS	296B	29.896	39.787	71.414	1.00	47.03	B
	ATOM	1680	SG	CYS	296B	29.401	38.963	69.870	1.00	49.47	B
	ATOM	1681	N	PHE	297B	32.166	37.964	72.802	1.00	42.89	B
45	ATOM	1682	CA	PHE	297B	33.206	36.969	72.596	1.00	43.21	B
	ATOM	1683	CB	PHE	297B	33.771	37.097	71.173	1.00	42.48	B
	ATOM	1684	CG	PHE	297B	34.472	35.854	70.662	1.00	44.17	B
	ATOM	1685	CD1	PHE	297B	34.753	35.717	69.298	1.00	41.93	B
	ATOM	1686	CD2	PHE	297B	34.874	34.836	71.533	1.00	44.10	B
50	ATOM	1687	CE1	PHE	297B	35.425	34.591	68.808	1.00	43.72	B
	ATOM	1688	CE2	PHE	297B	35.549	33.696	71.051	1.00	42.88	B
	ATOM	1689	CZ	PHE	297B	35.826	33.572	69.692	1.00	43.34	B
	ATOM	1690	C	PHE	297B	34.283	37.198	73.646	1.00	43.23	B
	ATOM	1691	O	PHE	297B	35.310	37.831	73.379	1.00	42.82	B
55	ATOM	1692	N	PRO	298B	34.043	36.697	74.874	1.00	43.64	B
	ATOM	1693	CD	PRO	298B	32.801	35.999	75.265	1.00	42.49	B
	ATOM	1694	CA	PRO	298B	34.959	36.812	76.019	1.00	42.18	B
	ATOM	1695	CB	PRO	298B	34.310	35.905	77.064	1.00	42.07	B
	ATOM	1696	CG	PRO	298B	32.842	36.097	76.781	1.00	43.28	B

	ATOM	1697	C	PRO	298B	36.376	36.374	75.659	1.00	41.96	B
	ATOM	1698	O	PRO	298B	36.565	35.440	74.878	1.00	42.45	B
	ATOM	1699	N	TYR	299B	37.368	37.043	76.239	1.00	41.48	B
	ATOM	1700	CA	TYR	299B	38.771	36.744	75.955	1.00	40.56	B
5	ATOM	1701	CB	TYR	299B	39.632	37.940	76.367	1.00	38.60	B
	ATOM	1702	CG	TYR	299B	41.077	37.861	75.933	1.00	36.11	B
	ATOM	1703	CD1	TYR	299B	41.416	37.725	74.583	1.00	35.97	B
	ATOM	1704	CE1	TYR	299B	42.759	37.684	74.172	1.00	36.07	B
	ATOM	1705	CD2	TYR	299B	42.111	37.956	76.866	1.00	34.09	B
10	ATOM	1706	CE2	TYR	299B	43.450	37.923	76.470	1.00	36.07	B
	ATOM	1707	CZ	TYR	299B	43.766	37.784	75.120	1.00	35.60	B
	ATOM	1708	OH	TYR	299B	45.081	37.729	74.728	1.00	35.47	B
	ATOM	1709	C	TYR	299B	39.293	35.471	76.635	1.00	41.47	B
	ATOM	1710	O	TYR	299B	39.065	35.254	77.828	1.00	41.13	B
15	ATOM	1711	N	THR	300B	39.997	34.644	75.865	1.00	41.13	B
	ATOM	1712	CA	THR	300B	40.568	33.396	76.374	1.00	42.19	B
	ATOM	1713	CB	THR	300B	39.882	32.161	75.748	1.00	43.22	B
	ATOM	1714	OG1	THR	300B	40.074	32.174	74.328	1.00	42.85	B
	ATOM	1715	CG2	THR	300B	38.379	32.156	76.062	1.00	41.81	B
20	ATOM	1716	C	THR	300B	42.071	33.297	76.089	1.00	43.59	B
	ATOM	1717	O	THR	300B	42.712	32.293	76.419	1.00	43.93	B
	ATOM	1718	N	ALA	301B	42.638	34.335	75.475	1.00	42.47	B
	ATOM	1719	CA	ALA	301B	44.064	34.336	75.166	1.00	41.74	B
	ATOM	1720	CB	ALA	301B	44.875	34.286	76.461	1.00	38.73	B
25	ATOM	1721	C	ALA	301B	44.447	33.161	74.265	1.00	42.21	B
	ATOM	1722	O	ALA	301B	45.559	32.639	74.355	1.00	44.95	B
	ATOM	1723	N	THR	302B	43.534	32.733	73.401	1.00	42.25	B
	ATOM	1724	CA	THR	302B	43.843	31.622	72.504	1.00	44.75	B
	ATOM	1725	CB	THR	302B	43.173	30.313	72.962	1.00	45.00	B
30	ATOM	1726	OG1	THR	302B	41.804	30.581	73.299	1.00	46.28	B
	ATOM	1727	CG2	THR	302B	43.904	29.715	74.165	1.00	44.67	B
	ATOM	1728	C	THR	302B	43.399	31.859	71.071	1.00	46.06	B
	ATOM	1729	O	THR	302B	42.549	32.710	70.791	1.00	46.42	B
	ATOM	1730	N	ASP	303B	43.986	31.097	70.159	1.00	46.71	B
35	ATOM	1731	CA	ASP	303B	43.608	31.193	68.765	1.00	46.34	B
	ATOM	1732	CB	ASP	303B	44.737	30.674	67.869	1.00	45.96	B
	ATOM	1733	CG	ASP	303B	45.831	31.718	67.649	1.00	46.49	B
	ATOM	1734	OD1	ASP	303B	47.022	31.354	67.576	1.00	48.18	B
	ATOM	1735	OD2	ASP	303B	45.500	32.911	67.534	1.00	48.24	B
40	ATOM	1736	C	ASP	303B	42.341	30.355	68.623	1.00	46.99	B
	ATOM	1737	O	ASP	303B	42.255	29.457	67.782	1.00	47.05	B
	ATOM	1738	N	ALA	304B	41.361	30.663	69.470	1.00	45.82	B
	ATOM	1739	CA	ALA	304B	40.079	29.970	69.467	1.00	47.64	B
	ATOM	1740	CB	ALA	304B	39.202	30.497	70.609	1.00	45.89	B
45	ATOM	1741	C	ALA	304B	39.355	30.160	68.132	1.00	48.95	B
	ATOM	1742	O	ALA	304B	39.627	31.110	67.400	1.00	49.00	B
	ATOM	1743	N	PRO	305B	38.419	29.250	67.802	1.00	50.16	B
	ATOM	1744	CD	PRO	305B	38.127	28.002	68.529	1.00	49.48	B
	ATOM	1745	CA	PRO	305B	37.647	29.317	66.553	1.00	50.12	B
50	ATOM	1746	CB	PRO	305B	36.779	28.058	66.612	1.00	49.68	B
	ATOM	1747	CG	PRO	305B	37.613	27.108	67.425	1.00	50.46	B
	ATOM	1748	C	PRO	305B	36.798	30.584	66.524	1.00	50.86	B
	ATOM	1749	O	PRO	305B	36.446	31.134	67.578	1.00	51.09	B
	ATOM	1750	N	CYS	306B	36.450	31.050	65.330	1.00	50.84	B
55	ATOM	1751	CA	CYS	306B	35.647	32.262	65.244	1.00	50.14	B
	ATOM	1752	C	CYS	306B	34.157	31.965	65.428	1.00	49.78	B
	ATOM	1753	O	CYS	306B	33.460	31.595	64.477	1.00	48.40	B
	ATOM	1754	CB	CYS	306B	35.900	32.985	63.913	1.00	48.98	B
	ATOM	1755	SG	CYS	306B	34.802	34.425	63.745	1.00	49.71	B

	ATOM	1756	N	LYS	307B	33.673	32.148	66.657	1.00	50.32	B
	ATOM	1757	CA	LYS	307B	32.274	31.876	66.975	1.00	51.81	B
	ATOM	1758	CB	LYS	307B	32.140	30.446	67.538	1.00	52.79	B
	ATOM	1759	CG	LYS	307B	32.399	29.312	66.509	1.00	56.05	B
5	ATOM	1760	CD	LYS	307B	32.215	27.895	67.104	1.00	53.84	B
	ATOM	1761	CE	LYS	307B	32.602	26.762	66.151	1.00	53.81	B
	ATOM	1762	NZ	LYS	307B	32.679	25.430	66.874	1.00	51.94	B
	ATOM	1763	C	LYS	307B	31.661	32.874	67.959	1.00	52.37	B
	ATOM	1764	O	LYS	307B	31.255	32.509	69.063	1.00	54.06	B
10	ATOM	1765	N	PRO	308B	31.558	34.148	67.574	1.00	51.54	B
	ATOM	1766	CD	PRO	308B	31.794	34.805	66.274	1.00	51.18	B
	ATOM	1767	CA	PRO	308B	30.966	35.072	68.546	1.00	49.80	B
	ATOM	1768	CB	PRO	308B	31.191	36.426	67.894	1.00	50.54	B
	ATOM	1769	CG	PRO	308B	31.012	36.097	66.416	1.00	50.56	B
15	ATOM	1770	C	PRO	308B	29.484	34.762	68.722	1.00	50.43	B
	ATOM	1771	O	PRO	308B	28.915	33.989	67.943	1.00	49.06	B
	ATOM	1772	N	LYS	309B	28.858	35.357	69.739	1.00	51.35	B
	ATOM	1773	CA	LYS	309B	27.431	35.149	69.958	1.00	53.39	B
	ATOM	1774	CB	LYS	309B	26.916	35.997	71.133	1.00	52.85	B
20	ATOM	1775	CG	LYS	309B	27.367	35.496	72.497	1.00	53.90	B
	ATOM	1776	CD	LYS	309B	26.563	36.096	73.651	1.00	53.55	B
	ATOM	1777	CE	LYS	309B	26.946	35.406	74.969	1.00	54.15	B
	ATOM	1778	NZ	LYS	309B	26.288	36.014	76.178	1.00	55.80	B
	ATOM	1779	C	LYS	309B	26.704	35.553	68.671	1.00	55.24	B
25	ATOM	1780	O	LYS	309B	27.314	36.101	67.748	1.00	54.49	B
	ATOM	1781	N	GLU	310B	25.623	35.074	68.273	1.00	57.19	B
	ATOM	1782	CA	GLU	310B	24.940	35.669	67.129	1.00	58.47	B
	ATOM	1783	CB	GLU	310B	24.049	34.628	66.438	1.00	62.70	B
	ATOM	1784	CG	GLU	310B	24.836	33.533	65.712	1.00	67.69	B
30	ATOM	1785	CD	GLU	310B	23.918	32.553	64.983	1.00	70.48	B
	ATOM	1786	OE1	GLU	310B	22.680	32.586	65.211	1.00	71.31	B
	ATOM	1787	OE2	GLU	310B	24.448	31.748	64.180	1.00	72.31	B
	ATOM	1788	C	GLU	310B	24.112	36.894	67.457	1.00	57.33	B
	ATOM	1789	O	GLU	310B	23.275	36.881	68.368	1.00	55.05	B
35	ATOM	1790	N	ASN	311B	24.520	37.620	66.133	1.00	56.73	B
	ATOM	1791	CA	ASN	311B	24.214	39.003	65.796	1.00	56.06	B
	ATOM	1792	CB	ASN	311B	22.780	39.070	65.288	1.00	59.97	B
	ATOM	1793	CG	ASN	311B	22.505	38.026	64.219	1.00	63.92	B
	ATOM	1794	OD1	ASN	311B	23.412	37.646	63.455	1.00	65.21	B
40	ATOM	1795	ND2	ASN	311B	21.259	37.556	64.149	1.00	63.92	B
	ATOM	1796	C	ASN	311B	24.438	40.079	66.864	1.00	54.41	B
	ATOM	1797	O	ASN	311B	23.519	40.823	67.213	1.00	52.52	B
	ATOM	1798	N	CYS	312B	25.658	40.173	67.378	1.00	52.59	B
	ATOM	1799	CA	CYS	312B	25.959	41.210	68.360	1.00	50.88	B
45	ATOM	1800	C	CYS	312B	26.117	42.531	67.600	1.00	48.44	B
	ATOM	1801	O	CYS	312B	26.410	42.535	66.398	1.00	46.22	B
	ATOM	1802	CB	CYS	312B	27.270	40.922	69.080	1.00	52.87	B
	ATOM	1803	SG	CYS	312B	27.398	39.285	69.861	1.00	55.87	B
	ATOM	1804	N	LEU	313B	25.921	43.641	68.307	1.00	44.82	B
50	ATOM	1805	CA	LEU	313B	26.059	44.957	67.713	1.00	41.50	B
	ATOM	1806	CB	LEU	313B	25.746	46.037	68.745	1.00	41.51	B
	ATOM	1807	CG	LEU	313B	25.968	47.481	68.300	1.00	41.80	B
	ATOM	1808	CD1	LEU	313B	24.983	47.828	67.192	1.00	43.15	B
	ATOM	1809	CD2	LEU	313B	25.777	48.408	69.477	1.00	42.57	B
55	ATOM	1810	C	LEU	313B	27.508	45.087	67.275	1.00	41.33	B
	ATOM	1811	O	LEU	313B	28.408	44.576	67.942	1.00	40.94	B
	ATOM	1812	N	ARG	314B	27.737	45.758	66.119	1.00	40.36	B
	ATOM	1813	CA	ARG	314B	29.123	45.978	65.643	1.00	38.33	B
	ATOM	1814	CB	ARG	314B	29.307	45.323	64.246	1.00	39.43	B

	ATOM	1815	CG	ARG	314B	28.987	43.836	64.405	1.00	35.94	B
	ATOM	1816	CD	ARG	314B	29.621	42.770	63.493	1.00	40.20	B
	ATOM	1817	NE	ARG	314B	31.086	42.528	63.477	1.00	44.23	B
	ATOM	1818	CZ	ARG	314B	31.677	41.392	63.924	1.00	42.80	B
5	ATOM	1819	NH1	ARG	314B	30.963	40.416	64.527	1.00	41.18	B
	ATOM	1820	NH2	ARG	314B	32.976	41.124	63.743	1.00	47.09	B
	ATOM	1821	C	ARG	314B	29.410	47.464	65.590	1.00	38.31	B
	ATOM	1822	O	ARG	314B	28.501	48.281	65.419	1.00	36.01	B
	ATOM	1823	N	TYR	315B	30.665	47.762	65.895	1.00	38.20	B
10	ATOM	1824	CA	TYR	315B	31.140	49.145	65.910	1.00	36.54	B
	ATOM	1825	CB	TYR	315B	31.824	49.478	67.228	1.00	36.49	B
	ATOM	1826	CG	TYR	315B	30.894	49.489	68.409	1.00	36.35	B
	ATOM	1827	CD1	TYR	315B	30.381	48.299	68.934	1.00	37.51	B
	ATOM	1828	CE1	TYR	315B	29.540	48.309	70.050	1.00	38.66	B
15	ATOM	1829	CD2	TYR	315B	30.540	50.690	69.024	1.00	37.39	B
	ATOM	1830	CE2	TYR	315B	29.700	50.712	70.138	1.00	36.28	B
	ATOM	1831	CZ	TYR	315B	29.208	49.526	70.644	1.00	37.26	B
	ATOM	1832	OH	TYR	315B	28.390	49.560	71.743	1.00	40.40	B
	ATOM	1833	C	TYR	315B	32.125	49.327	64.778	1.00	36.02	B
20	ATOM	1834	O	TYR	315B	32.948	48.450	64.512	1.00	36.19	B
	ATOM	1835	N	TYR	316B	32.054	50.478	64.122	1.00	35.57	B
	ATOM	1836	CA	TYR	316B	32.921	50.747	62.989	1.00	34.18	B
	ATOM	1837	CB	TYR	316B	32.067	50.850	61.723	1.00	35.06	B
	ATOM	1838	CG	TYR	316B	31.327	49.580	61.380	1.00	35.08	B
25	ATOM	1839	CD1	TYR	316B	31.829	48.700	60.422	1.00	34.95	B
	ATOM	1840	CE1	TYR	316B	31.166	47.528	60.106	1.00	34.50	B
	ATOM	1841	CD2	TYR	316B	30.133	49.249	62.019	1.00	36.53	B
	ATOM	1842	CE2	TYR	316B	29.456	48.066	61.710	1.00	35.41	B
	ATOM	1843	CZ	TYR	316B	29.982	47.216	60.751	1.00	37.02	B
30	ATOM	1844	OH	TYR	316B	29.337	46.041	60.436	1.00	40.95	B
	ATOM	1845	C	TYR	316B	33.751	52.012	63.128	1.00	34.32	B
	ATOM	1846	O	TYR	316B	33.469	52.882	63.958	1.00	34.67	B
	ATOM	1847	N	SER	317B	34.787	52.100	62.303	1.00	32.02	B
	ATOM	1848	CA	SER	317B	35.643	53.271	62.280	1.00	32.37	B
35	ATOM	1849	CB	SER	317B	37.122	52.875	62.363	1.00	30.76	B
	ATOM	1850	OG	SER	317B	37.481	52.501	63.680	1.00	32.09	B
	ATOM	1851	C	SER	317B	35.374	54.004	60.972	1.00	33.02	B
	ATOM	1852	O	SER	317B	35.479	53.415	59.893	1.00	34.34	B
	ATOM	1853	N	SER	318B	35.018	55.281	61.072	1.00	33.88	B
40	ATOM	1854	CA	SER	318B	34.745	56.103	59.895	1.00	34.38	B
	ATOM	1855	CB	SER	318B	33.944	57.348	60.286	1.00	32.60	B
	ATOM	1856	OG	SER	318B	34.668	58.153	61.198	1.00	33.01	B
	ATOM	1857	C	SER	318B	36.044	56.525	59.206	1.00	35.89	B
	ATOM	1858	O	SER	318B	36.048	56.811	58.011	1.00	36.70	B
45	ATOM	1859	N	GLU	319B	37.140	56.570	59.958	1.00	36.23	B
	ATOM	1860	CA	GLU	319B	38.436	56.946	59.394	1.00	37.44	B
	ATOM	1861	CB	GLU	319B	38.551	58.472	59.264	1.00	39.51	B
	ATOM	1862	CG	GLU	319B	39.929	58.978	58.796	1.00	45.19	B
	ATOM	1863	CD	GLU	319B	40.306	58.564	57.355	1.00	47.22	B
50	ATOM	1864	OE1	GLU	319B	40.419	57.349	57.053	1.00	47.01	B
	ATOM	1865	OE2	GLU	319B	40.502	59.476	56.518	1.00	49.62	B
	ATOM	1866	C	GLU	319B	39.582	56.414	60.246	1.00	37.00	B
	ATOM	1867	O	GLU	319B	39.411	56.136	61.437	1.00	36.83	B
	ATOM	1868	N	TYR	320B	40.743	56.260	59.614	1.00	34.32	B
55	ATOM	1869	CA	TYR	320B	41.949	55.767	60.267	1.00	32.80	B
	ATOM	1870	CB	TYR	320B	41.917	54.239	60.429	1.00	32.30	B
	ATOM	1871	CG	TYR	320B	41.661	53.473	59.144	1.00	34.96	B
	ATOM	1872	CD1	TYR	320B	40.358	53.214	58.708	1.00	31.24	B
	ATOM	1873	CE1	TYR	320B	40.123	52.514	57.542	1.00	31.55	B

	ATOM	1874	CD2	TYR	320B	42.724	53.007	58.362	1.00	32.05	B
	ATOM	1875	CE2	TYR	320B	42.495	52.306	57.188	1.00	31.21	B
	ATOM	1876	CZ	TYR	320B	41.191	52.059	56.785	1.00	32.25	B
	ATOM	1877	OH	TYR	320B	40.958	51.338	55.638	1.00	33.25	B
5	ATOM	1878	C	TYR	320B	43.157	56.171	59.425	1.00	31.66	B
	ATOM	1879	O	TYR	320B	43.089	56.197	58.200	1.00	29.23	B
	ATOM	1880	N	TYR	321B	44.267	56.462	60.091	1.00	31.45	B
	ATOM	1881	CA	TYR	321B	45.466	56.897	59.401	1.00	31.39	B
	ATOM	1882	CB	TYR	321B	45.249	58.335	58.904	1.00	33.28	B
10	ATOM	1883	CG	TYR	321B	44.701	59.249	59.988	1.00	34.81	B
	ATOM	1884	CD1	TYR	321B	45.553	59.853	60.913	1.00	35.66	B
	ATOM	1885	CE1	TYR	321B	45.051	60.588	61.988	1.00	36.78	B
	ATOM	1886	CD2	TYR	321B	43.321	59.416	60.162	1.00	36.50	B
	ATOM	1887	CE2	TYR	321B	42.808	60.148	61.234	1.00	35.27	B
15	ATOM	1888	CZ	TYR	321B	43.680	60.729	62.146	1.00	38.74	B
	ATOM	1889	OH	TYR	321B	43.193	61.435	63.225	1.00	39.93	B
	ATOM	1890	C	TYR	321B	46.658	56.863	60.341	1.00	33.02	B
	ATOM	1891	O	TYR	321B	46.504	56.714	61.557	1.00	33.46	B
	ATOM	1892	N	TYR	322B	47.850	56.998	59.770	1.00	32.30	B
20	ATOM	1893	CA	TYR	322B	49.068	57.055	60.561	1.00	30.61	B
	ATOM	1894	CB	TYR	322B	50.277	56.541	59.766	1.00	28.96	B
	ATOM	1895	CG	TYR	322B	50.440	55.047	59.820	1.00	31.20	B
	ATOM	1896	CD1	TYR	322B	50.433	54.284	58.653	1.00	32.44	B
	ATOM	1897	CE1	TYR	322B	50.536	52.892	58.701	1.00	31.94	B
25	ATOM	1898	CD2	TYR	322B	50.558	54.380	61.046	1.00	30.41	B
	ATOM	1899	CE2	TYR	322B	50.656	52.989	61.105	1.00	30.21	B
	ATOM	1900	CZ	TYR	322B	50.645	52.254	59.930	1.00	32.48	B
	ATOM	1901	OH	TYR	322B	50.732	50.882	59.971	1.00	32.97	B
	ATOM	1902	C	TYR	322B	49.263	58.526	60.876	1.00	30.68	B
30	ATOM	1903	O	TYR	322B	48.994	59.372	60.027	1.00	31.16	B
	ATOM	1904	N	VAL	323B	49.694	58.833	62.098	1.00	31.53	B
	ATOM	1905	CA	VAL	323B	49.953	60.215	62.474	1.00	31.70	B
	ATOM	1906	CB	VAL	323B	50.463	60.326	63.931	1.00	31.76	B
	ATOM	1907	CG1	VAL	323B	50.920	61.745	64.216	1.00	29.24	B
35	ATOM	1908	CG2	VAL	323B	49.358	59.931	64.897	1.00	30.76	B
	ATOM	1909	C	VAL	323B	51.035	60.704	61.514	1.00	32.07	B
	ATOM	1910	O	VAL	323B	52.094	60.103	61.395	1.00	31.97	B
	ATOM	1911	N	GLY	324B	50.757	61.792	60.815	1.00	32.96	B
	ATOM	1912	CA	GLY	324B	51.716	62.297	59.855	1.00	33.37	B
40	ATOM	1913	C	GLY	324B	51.211	61.986	58.462	1.00	32.95	B
	ATOM	1914	O	GLY	324B	51.796	62.421	57.474	1.00	34.70	B
	ATOM	1915	N	GLY	325B	50.133	61.210	58.386	1.00	32.14	B
	ATOM	1916	CA	GLY	325B	49.542	60.879	57.101	1.00	32.65	B
	ATOM	1917	C	GLY	325B	49.892	59.535	56.493	1.00	34.07	B
45	ATOM	1918	O	GLY	325B	49.128	59.006	55.691	1.00	35.76	B
	ATOM	1919	N	PHE	326B	51.041	58.980	56.863	1.00	32.05	B
	ATOM	1920	CA	PHE	326B	51.475	57.697	56.325	1.00	31.75	B
	ATOM	1921	CB	PHE	326B	51.880	57.852	54.849	1.00	30.88	B
	ATOM	1922	CG	PHE	326B	52.882	58.951	54.614	1.00	32.28	B
50	ATOM	1923	CD1	PHE	326B	54.238	58.749	54.878	1.00	32.17	B
	ATOM	1924	CD2	PHE	326B	52.457	60.221	54.226	1.00	31.14	B
	ATOM	1925	CE1	PHE	326B	55.154	59.794	54.772	1.00	33.66	B
	ATOM	1926	CE2	PHE	326B	53.361	61.277	54.115	1.00	32.27	B
	ATOM	1927	CZ	PHE	326B	54.713	61.065	54.391	1.00	35.18	B
55	ATOM	1928	C	PHE	326B	52.665	57.236	57.150	1.00	32.65	B
	ATOM	1929	O	PHE	326B	53.291	58.042	57.832	1.00	31.19	B
	ATOM	1930	N	TYR	327B	52.968	55.943	57.088	1.00	32.42	B
	ATOM	1931	CA	TYR	327B	54.087	55.393	57.835	1.00	31.51	B
	ATOM	1932	CB	TYR	327B	54.200	53.892	57.590	1.00	34.32	B

	ATOM	1933	CG	TYR	327B	55.283	53.228	58.404	1.00	34.97	B
	ATOM	1934	CD1	TYR	327B	55.472	53.561	59.746	1.00	36.83	B
	ATOM	1935	CE1	TYR	327B	56.437	52.926	60.515	1.00	35.25	B
	ATOM	1936	CD2	TYR	327B	56.090	52.241	57.851	1.00	35.25	B
5	ATOM	1937	CE2	TYR	327B	57.058	51.596	58.612	1.00	36.36	B
	ATOM	1938	CZ	TYR	327B	57.225	51.944	59.945	1.00	35.11	B
	ATOM	1939	OH	TYR	327B	58.175	51.308	60.704	1.00	34.04	B
	ATOM	1940	C	TYR	327B	55.389	56.078	57.447	1.00	31.95	B
	ATOM	1941	O	TYR	327B	55.842	56.002	56.300	1.00	29.67	B
10	ATOM	1942	N	GLY	328B	55.983	56.754	58.422	1.00	31.08	B
	ATOM	1943	CA	GLY	328B	57.217	57.463	58.181	1.00	30.84	B
	ATOM	1944	C	GLY	328B	57.067	58.944	58.455	1.00	32.16	B
	ATOM	1945	O	GLY	328B	58.062	59.653	58.576	1.00	32.19	B
	ATOM	1946	N	GLY	329B	55.829	59.416	58.570	1.00	31.82	B
15	ATOM	1947	CA	GLY	329B	55.613	60.831	58.823	1.00	32.74	B
	ATOM	1948	C	GLY	329B	55.406	61.241	60.269	1.00	31.70	B
	ATOM	1949	O	GLY	329B	55.228	62.422	60.559	1.00	30.76	B
	ATOM	1950	N	CYS	330B	55.452	60.280	61.181	1.00	32.75	B
	ATOM	1951	CA	CYS	330B	55.240	60.546	62.603	1.00	33.51	B
20	ATOM	1952	CB	CYS	330B	55.045	59.206	63.330	1.00	34.94	B
	ATOM	1953	SG	CYS	330B	54.524	59.269	65.068	1.00	33.58	B
	ATOM	1954	C	CYS	330B	56.349	61.349	63.296	1.00	35.17	B
	ATOM	1955	O	CYS	330B	57.512	61.288	62.910	1.00	34.12	B
	ATOM	1956	N	ASN	331B	55.964	62.131	64.303	1.00	36.70	B
25	ATOM	1957	CA	ASN	331B	56.906	62.900	65.117	1.00	35.98	B
	ATOM	1958	CB	ASN	331B	57.488	64.103	64.354	1.00	35.64	B
	ATOM	1959	CG	ASN	331B	56.483	65.219	64.124	1.00	37.76	B
	ATOM	1960	OD1	ASN	331B	55.918	65.780	65.066	1.00	38.28	B
	ATOM	1961	ND2	ASN	331B	56.274	65.565	62.858	1.00	38.14	B
30	ATOM	1962	C	ASN	331B	56.187	63.342	66.388	1.00	36.65	B
	ATOM	1963	O	ASN	331B	54.957	63.386	66.421	1.00	36.77	B
	ATOM	1964	N	GLU	332B	56.950	63.648	67.432	1.00	37.40	B
	ATOM	1965	CA	GLU	332B	56.388	64.067	68.718	1.00	37.73	B
	ATOM	1966	CB	GLU	332B	57.514	64.550	69.655	1.00	39.70	B
35	ATOM	1967	CG	GLU	332B	57.015	65.463	70.786	1.00	42.08	B
	ATOM	1968	CD	GLU	332B	58.111	65.914	71.739	1.00	43.70	B
	ATOM	1969	OE1	GLU	332B	59.275	66.068	71.301	1.00	45.28	B
	ATOM	1970	OE2	GLU	332B	57.799	66.136	72.933	1.00	44.40	B
	ATOM	1971	C	GLU	332B	55.281	65.135	68.670	1.00	36.61	B
40	ATOM	1972	O	GLU	332B	54.227	64.973	69.291	1.00	36.38	B
	ATOM	1973	N	ALA	333B	55.527	66.226	67.951	1.00	35.01	B
	ATOM	1974	CA	ALA	333B	54.561	67.326	67.850	1.00	33.63	B
	ATOM	1975	CB	ALA	333B	55.155	68.463	67.004	1.00	31.77	B
	ATOM	1976	C	ALA	333B	53.189	66.916	67.294	1.00	34.22	B
45	ATOM	1977	O	ALA	333B	52.156	67.291	67.848	1.00	36.15	B
	ATOM	1978	N	LEU	334B	53.179	66.165	66.194	1.00	33.77	B
	ATOM	1979	CA	LEU	334B	51.930	65.709	65.597	1.00	32.60	B
	ATOM	1980	CB	LEU	334B	52.190	65.042	64.244	1.00	32.34	B
	ATOM	1981	CG	LEU	334B	52.779	65.947	63.157	1.00	32.75	B
50	ATOM	1982	CD1	LEU	334B	53.111	65.113	61.929	1.00	31.61	B
	ATOM	1983	CD2	LEU	334B	51.791	67.062	62.810	1.00	30.02	B
	ATOM	1984	C	LEU	334B	51.218	64.737	66.526	1.00	33.08	B
	ATOM	1985	O	LEU	334B	49.995	64.688	66.549	1.00	33.88	B
	ATOM	1986	N	MET	335B	51.984	63.955	67.283	1.00	32.36	B
55	ATOM	1987	CA	MET	335B	51.395	63.012	68.226	1.00	32.17	B
	ATOM	1988	CB	MET	335B	52.476	62.109	68.835	1.00	33.28	B
	ATOM	1989	CG	MET	335B	52.983	61.009	67.907	1.00	32.00	B
	ATOM	1990	SD	MET	335B	54.491	60.191	68.529	1.00	33.11	B
	ATOM	1991	CE	MET	335B	53.804	59.189	69.861	1.00	29.76	B

	ATOM	1992	C	MET	335B	50.670	63.788	69.332	1.00	30.38	B
	ATOM	1993	O	MET	335B	49.534	63.459	69.686	1.00	29.99	B
	ATOM	1994	N	LYS	336B	51.327	64.818	69.866	1.00	29.70	B
	ATOM	1995	CA	LYS	336B	50.735	65.650	70.912	1.00	32.70	B
5	ATOM	1996	CB	LYS	336B	51.704	66.757	71.338	1.00	31.01	B
	ATOM	1997	CG	LYS	336B	52.786	66.317	72.300	1.00	31.76	B
	ATOM	1998	CD	LYS	336B	53.857	67.393	72.465	1.00	30.72	B
	ATOM	1999	CE	LYS	336B	53.336	68.619	73.184	1.00	30.72	B
	ATOM	2000	NZ	LYS	336B	54.348	69.713	73.193	1.00	30.23	B
10	ATOM	2001	C	LYS	336B	49.435	66.287	70.416	1.00	34.90	B
	ATOM	2002	O	LYS	336B	48.448	66.358	71.152	1.00	35.75	B
	ATOM	2003	N	LEU	337B	49.443	66.753	69.168	1.00	34.39	B
	ATOM	2004	CA	LEU	337B	48.264	67.381	68.580	1.00	34.73	B
	ATOM	2005	CB	LEU	337B	48.613	67.977	67.212	1.00	36.62	B
15	ATOM	2006	CG	LEU	337B	47.537	68.729	66.423	1.00	39.73	B
	ATOM	2007	CD1	LEU	337B	46.957	69.859	67.272	1.00	38.38	B
	ATOM	2008	CD2	LEU	337B	48.161	69.290	65.136	1.00	39.38	B
	ATOM	2009	C	LEU	337B	47.137	66.363	68.435	1.00	34.35	B
	ATOM	2010	O	LEU	337B	46.006	66.603	68.862	1.00	35.54	B
20	ATOM	2011	N	GLU	338B	47.451	65.221	67.832	1.00	32.29	B
	ATOM	2012	CA	GLU	338B	46.461	64.169	67.647	1.00	32.37	B
	ATOM	2013	CB	GLU	338B	47.087	62.987	66.908	1.00	30.50	B
	ATOM	2014	CG	GLU	338B	46.156	61.808	66.687	1.00	32.15	B
	ATOM	2015	CD	GLU	338B	44.985	62.139	65.781	1.00	33.83	B
25	ATOM	2016	OE1	GLU	338B	45.151	62.991	64.884	1.00	36.26	B
	ATOM	2017	OE2	GLU	338B	43.904	61.533	65.952	1.00	35.56	B
	ATOM	2018	C	GLU	338B	45.912	63.706	68.996	1.00	31.66	B
	ATOM	2019	O	GLU	338B	44.720	63.461	69.131	1.00	31.49	B
	ATOM	2020	N	LEU	339B	46.788	63.593	69.991	1.00	31.90	B
30	ATOM	2021	CA	LEU	339B	46.370	63.156	71.314	1.00	32.78	B
	ATOM	2022	CB	LEU	339B	47.580	63.038	72.250	1.00	32.61	B
	ATOM	2023	CG	LEU	339B	47.272	62.501	73.651	1.00	34.38	B
	ATOM	2024	CD1	LEU	339B	46.787	61.067	73.545	1.00	31.74	B
	ATOM	2025	CD2	LEU	339B	48.515	62.563	74.533	1.00	34.86	B
35	ATOM	2026	C	LEU	339B	45.343	64.101	71.934	1.00	32.19	B
	ATOM	2027	O	LEU	339B	44.253	63.690	72.302	1.00	33.05	B
	ATOM	2028	N	VAL	340B	45.687	65.376	72.033	1.00	32.93	B
	ATOM	2029	CA	VAL	340B	44.785	66.339	72.647	1.00	35.48	B
	ATOM	2030	CB	VAL	340B	45.515	67.682	72.900	1.00	37.63	B
40	ATOM	2031	CG1	VAL	340B	44.591	68.649	73.607	1.00	39.05	B
	ATOM	2032	CG2	VAL	340B	46.756	67.446	73.751	1.00	35.15	B
	ATOM	2033	C	VAL	340B	43.503	66.587	71.857	1.00	36.51	B
	ATOM	2034	O	VAL	340B	42.435	66.739	72.440	1.00	38.25	B
	ATOM	2035	N	LYS	341B	43.610	66.608	70.534	1.00	37.06	B
45	ATOM	2036	CA	LYS	341B	42.471	66.843	69.648	1.00	36.80	B
	ATOM	2037	CB	LYS	341B	42.976	67.157	68.241	1.00	40.41	B
	ATOM	2038	CG	LYS	341B	42.747	68.563	67.745	1.00	44.82	B
	ATOM	2039	CD	LYS	341B	43.339	68.718	66.334	1.00	48.70	B
	ATOM	2040	CE	LYS	341B	42.832	69.975	65.637	1.00	51.48	B
50	ATOM	2041	NZ	LYS	341B	41.339	69.932	65.448	1.00	52.86	B
	ATOM	2042	C	LYS	341B	41.480	65.681	69.534	1.00	38.03	B
	ATOM	2043	O	LYS	341B	40.269	65.875	69.629	1.00	36.41	B
	ATOM	2044	N	HIS	342B	41.988	64.470	69.322	1.00	37.39	B
	ATOM	2045	CA	HIS	342B	41.099	63.332	69.134	1.00	38.95	B
55	ATOM	2046	CB	HIS	342B	41.329	62.740	67.738	1.00	39.83	B
	ATOM	2047	CG	HIS	342B	41.233	63.755	66.641	1.00	40.53	B
	ATOM	2048	CD2	HIS	342B	42.184	64.311	65.855	1.00	41.36	B
	ATOM	2049	ND1	HIS	342B	40.049	64.381	66.309	1.00	42.40	B
	ATOM	2050	CE1	HIS	342B	40.277	65.281	65.370	1.00	41.54	B

	ATOM	2051	NE2	HIS	342B	41.566	65.260	65.077	1.00	42.53	B
	ATOM	2052	C	HIS	342B	41.135	62.223	70.172	1.00	38.85	B
	ATOM	2053	O	HIS	342B	40.309	61.314	70.117	1.00	38.88	B
	ATOM	2054	N	GLY	343B	42.075	62.290	71.110	1.00	37.75	B
5	ATOM	2055	CA	GLY	343B	42.148	61.267	72.140	1.00	36.68	B
	ATOM	2056	C	GLY	343B	43.295	60.273	72.029	1.00	36.64	B
	ATOM	2057	O	GLY	343B	44.165	60.405	71.160	1.00	37.42	B
	ATOM	2058	N	PRO	344B	43.328	59.266	72.920	1.00	34.78	B
	ATOM	2059	CD	PRO	344B	42.408	59.101	74.065	1.00	34.64	B
10	ATOM	2060	CA	PRO	344B	44.363	58.231	72.940	1.00	32.82	B
	ATOM	2061	CB	PRO	344B	43.858	57.266	74.010	1.00	32.66	B
	ATOM	2062	CG	PRO	344B	43.198	58.199	74.988	1.00	34.67	B
	ATOM	2063	C	PRO	344B	44.556	57.550	71.590	1.00	31.27	B
	ATOM	2064	O	PRO	344B	43.594	57.290	70.864	1.00	31.59	B
15	ATOM	2065	N	MET	345B	45.809	57.256	71.268	1.00	30.45	B
	ATOM	2066	CA	MET	345B	46.151	56.608	70.010	1.00	32.32	B
	ATOM	2067	CB	MET	345B	46.824	57.605	69.073	1.00	30.74	B
	ATOM	2068	CG	MET	345B	48.219	57.965	69.512	1.00	32.71	B
	ATOM	2069	SD	MET	345B	48.811	59.420	68.690	1.00	35.89	B
20	ATOM	2070	CE	MET	345B	48.085	60.666	69.720	1.00	33.56	B
	ATOM	2071	C	MET	345B	47.092	55.419	70.207	1.00	33.20	B
	ATOM	2072	O	MET	345B	47.736	55.273	71.251	1.00	33.90	B
	ATOM	2073	N	ALA	346B	47.174	54.586	69.176	1.00	33.18	B
	ATOM	2074	CA	ALA	346B	48.036	53.418	69.192	1.00	33.51	B
25	ATOM	2075	CB	ALA	346B	47.490	52.356	68.236	1.00	32.10	B
	ATOM	2076	C	ALA	346B	49.470	53.780	68.804	1.00	34.12	B
	ATOM	2077	O	ALA	346B	49.707	54.625	67.936	1.00	34.73	B
	ATOM	2078	N	VAL	347B	50.418	53.140	69.478	1.00	34.39	B
	ATOM	2079	CA	VAL	347B	51.837	53.321	69.214	1.00	32.93	B
30	ATOM	2080	CB	VAL	347B	52.485	54.360	70.168	1.00	32.26	B
	ATOM	2081	CG1	VAL	347B	51.862	55.728	69.946	1.00	31.80	B
	ATOM	2082	CG2	VAL	347B	52.323	53.926	71.612	1.00	30.43	B
	ATOM	2083	C	VAL	347B	52.487	51.968	69.446	1.00	33.63	B
	ATOM	2084	O	VAL	347B	51.950	51.137	70.176	1.00	34.41	B
35	ATOM	2085	N	ALA	348B	53.626	51.732	68.808	1.00	32.97	B
	ATOM	2086	CA	ALA	348B	54.349	50.480	68.992	1.00	32.08	B
	ATOM	2087	CB	ALA	348B	54.219	49.598	67.752	1.00	32.24	B
	ATOM	2088	C	ALA	348B	55.809	50.825	69.259	1.00	31.90	B
	ATOM	2089	O	ALA	348B	56.282	51.880	68.851	1.00	32.63	B
40	ATOM	2090	N	PHE	349B	56.521	49.950	69.954	1.00	31.97	B
	ATOM	2091	CA	PHE	349B	57.923	50.205	70.258	1.00	32.73	B
	ATOM	2092	CB	PHE	349B	58.049	51.096	71.494	1.00	31.29	B
	ATOM	2093	CG	PHE	349B	57.619	50.430	72.773	1.00	32.83	B
	ATOM	2094	CD1	PHE	349B	56.282	50.114	72.998	1.00	30.76	B
45	ATOM	2095	CD2	PHE	349B	58.555	50.144	73.771	1.00	33.25	B
	ATOM	2096	CE1	PHE	349B	55.875	49.529	74.203	1.00	33.71	B
	ATOM	2097	CE2	PHE	349B	58.160	49.559	74.985	1.00	34.19	B
	ATOM	2098	CZ	PHE	349B	56.814	49.252	75.201	1.00	34.21	B
	ATOM	2099	C	PHE	349B	58.642	48.891	70.508	1.00	33.85	B
50	ATOM	2100	O	PHE	349B	58.023	47.830	70.479	1.00	35.04	B
	ATOM	2101	N	GLU	350B	59.946	48.960	70.757	1.00	34.78	B
	ATOM	2102	CA	GLU	350B	60.717	47.750	71.017	1.00	36.58	B
	ATOM	2103	CB	GLU	350B	62.131	47.867	70.437	1.00	39.17	B
	ATOM	2104	CG	GLU	350B	62.745	46.511	70.089	1.00	43.00	B
55	ATOM	2105	CD	GLU	350B	64.242	46.583	69.808	1.00	44.91	B
	ATOM	2106	OE1	GLU	350B	64.699	47.572	69.193	1.00	44.01	B
	ATOM	2107	OE2	GLU	350B	64.961	45.632	70.195	1.00	46.98	B
	ATOM	2108	C	GLU	350B	60.818	47.465	72.513	1.00	35.36	B
	ATOM	2109	O	GLU	350B	61.375	48.260	73.262	1.00	31.99	B

	ATOM	2110	N	VAL	351B	60.263	46.334	72.943	1.00	37.41	B
	ATOM	2111	CA	VAL	351B	60.332	45.941	74.353	1.00	38.55	B
	ATOM	2112	CB	VAL	351B	59.189	44.970	74.740	1.00	37.18	B
	ATOM	2113	CG1	VAL	351B	59.506	44.287	76.058	1.00	37.59	B
5	ATOM	2114	CG2	VAL	351B	57.887	45.728	74.874	1.00	38.04	B
	ATOM	2115	C	VAL	351B	61.668	45.243	74.608	1.00	38.24	B
	ATOM	2116	O	VAL	351B	61.974	44.233	73.984	1.00	39.22	B
	ATOM	2117	N	HIS	352B	62.471	45.803	75.503	1.00	39.23	B
	ATOM	2118	CA	HIS	352B	63.755	45.204	75.841	1.00	41.67	B
10	ATOM	2119	CB	HIS	352B	64.831	46.270	75.980	1.00	41.13	B
	ATOM	2120	CG	HIS	352B	65.192	46.922	74.687	1.00	42.89	B
	ATOM	2121	CD2	HIS	352B	64.955	48.170	74.219	1.00	41.03	B
	ATOM	2122	ND1	HIS	352B	65.877	46.262	73.689	1.00	43.67	B
	ATOM	2123	CE1	HIS	352B	66.048	47.078	72.663	1.00	43.29	B
15	ATOM	2124	NE2	HIS	352B	65.497	48.242	72.960	1.00	41.22	B
	ATOM	2125	C	HIS	352B	63.598	44.455	77.145	1.00	42.57	B
	ATOM	2126	O	HIS	352B	62.524	44.443	77.740	1.00	43.22	B
	ATOM	2127	N	ASP	353B	64.664	43.825	77.600	1.00	43.27	B
	ATOM	2128	CA	ASP	353B	64.559	43.077	78.825	1.00	44.00	B
20	ATOM	2129	CB	ASP	353B	65.782	42.202	79.006	1.00	48.81	B
	ATOM	2130	CG	ASP	353B	65.405	40.769	79.196	1.00	54.39	B
	ATOM	2131	OD1	ASP	353B	65.083	40.119	78.165	1.00	57.24	B
	ATOM	2132	OD2	ASP	353B	65.395	40.312	80.372	1.00	55.38	B
	ATOM	2133	C	ASP	353B	64.349	43.937	80.059	1.00	42.66	B
25	ATOM	2134	O	ASP	353B	63.527	43.607	80.914	1.00	42.01	B
	ATOM	2135	N	ASP	354B	65.092	45.033	80.159	1.00	42.23	B
	ATOM	2136	CA	ASP	354B	64.950	45.927	81.306	1.00	43.33	B
	ATOM	2137	CB	ASP	354B	65.890	47.126	81.174	1.00	42.16	B
	ATOM	2138	CG	ASP	354B	65.730	47.865	79.847	1.00	43.35	B
30	ATOM	2139	OD1	ASP	354B	64.750	47.595	79.115	1.00	39.68	B
	ATOM	2140	OD2	ASP	354B	66.592	48.724	79.547	1.00	41.72	B
	ATOM	2141	C	ASP	354B	63.514	46.430	81.463	1.00	44.05	B
	ATOM	2142	O	ASP	354B	63.085	46.761	82.573	1.00	46.89	B
	ATOM	2143	N	PHE	355B	62.769	46.470	80.359	1.00	42.64	B
35	ATOM	2144	CA	PHE	355B	61.388	46.956	80.380	1.00	41.15	B
	ATOM	2145	CB	PHE	355B	60.883	47.199	78.943	1.00	38.40	B
	ATOM	2146	CG	PHE	355B	59.551	47.894	78.876	1.00	33.95	B
	ATOM	2147	CD1	PHE	355B	59.468	49.278	78.952	1.00	35.87	B
	ATOM	2148	CD2	PHE	355B	58.375	47.163	78.776	1.00	35.35	B
40	ATOM	2149	CE1	PHE	355B	58.228	49.925	78.933	1.00	32.94	B
	ATOM	2150	CE2	PHE	355B	57.134	47.800	78.758	1.00	32.91	B
	ATOM	2151	CZ	PHE	355B	57.065	49.180	78.836	1.00	32.76	B
	ATOM	2152	C	PHE	355B	60.452	45.987	81.090	1.00	40.52	B
	ATOM	2153	O	PHE	355B	59.492	46.396	81.734	1.00	39.70	B
45	ATOM	2154	N	LEU	356B	60.730	44.698	80.970	1.00	42.40	B
	ATOM	2155	CA	LEU	356B	59.882	43.689	81.600	1.00	42.80	B
	ATOM	2156	CB	LEU	356B	60.408	42.300	81.250	1.00	42.98	B
	ATOM	2157	CG	LEU	356B	60.517	42.050	79.749	1.00	43.01	B
	ATOM	2158	CD1	LEU	356B	60.946	40.612	79.515	1.00	41.96	B
50	ATOM	2159	CD2	LEU	356B	59.172	42.323	79.085	1.00	43.23	B
	ATOM	2160	C	LEU	356B	59.764	43.833	83.121	1.00	42.09	B
	ATOM	2161	O	LEU	356B	58.750	43.465	83.705	1.00	42.02	B
	ATOM	2162	N	HIS	357B	60.797	44.371	83.756	1.00	42.28	B
	ATOM	2163	CA	HIS	357B	60.788	44.542	85.207	1.00	44.19	B
55	ATOM	2164	CB	HIS	357B	62.143	44.117	85.786	1.00	44.17	B
	ATOM	2165	CG	HIS	357B	62.503	42.700	85.472	1.00	45.71	B
	ATOM	2166	CD2	HIS	357B	63.325	42.178	84.530	1.00	45.84	B
	ATOM	2167	ND1	HIS	357B	61.909	41.626	86.102	1.00	45.86	B
	ATOM	2168	CE1	HIS	357B	62.345	40.504	85.558	1.00	45.27	B

	ATOM	2169	NE2	HIS	357B	63.204	40.810	84.601	1.00	46.46	B
	ATOM	2170	C	HIS	357B	60.477	45.980	85.617	1.00	42.94	B
	ATOM	2171	O	HIS	357B	60.739	46.379	86.751	1.00	41.95	B
	ATOM	2172	N	TYR	358B	59.920	46.755	84.690	1.00	41.10	B
5	ATOM	2173	CA	TYR	358B	59.577	48.140	84.974	1.00	40.29	B
	ATOM	2174	CB	TYR	358B	58.934	48.784	83.752	1.00	38.69	B
	ATOM	2175	CG	TYR	358B	58.356	50.154	84.029	1.00	36.05	B
	ATOM	2176	CD1	TYR	358B	59.168	51.287	84.055	1.00	34.16	B
	ATOM	2177	CE1	TYR	358B	58.625	52.551	84.297	1.00	33.09	B
10	ATOM	2178	CD2	TYR	358B	56.993	50.314	84.263	1.00	33.51	B
	ATOM	2179	CE2	TYR	358B	56.447	51.564	84.511	1.00	32.71	B
	ATOM	2180	CZ	TYR	358B	57.259	52.679	84.522	1.00	32.23	B
	ATOM	2181	OH	TYR	358B	56.695	53.919	84.727	1.00	31.66	B
	ATOM	2182	C	TYR	358B	58.615	48.260	86.158	1.00	40.78	B
15	ATOM	2183	O	TYR	358B	57.632	47.534	86.250	1.00	39.99	B
	ATOM	2184	N	HIS	359B	58.895	49.187	87.060	1.00	41.39	B
	ATOM	2185	CA	HIS	359B	58.020	49.383	88.208	1.00	42.70	B
	ATOM	2186	CB	HIS	359B	58.760	49.029	89.502	1.00	45.88	B
	ATOM	2187	CG	HIS	359B	58.949	47.557	89.693	1.00	49.58	B
20	ATOM	2188	CD2	HIS	359B	60.027	46.760	89.493	1.00	52.11	B
	ATOM	2189	ND1	HIS	359B	57.920	46.721	90.069	1.00	52.14	B
	ATOM	2190	CE1	HIS	359B	58.352	45.470	90.090	1.00	53.10	B
	ATOM	2191	NE2	HIS	359B	59.628	45.465	89.743	1.00	53.27	B
	ATOM	2192	C	HIS	359B	57.483	50.800	88.283	1.00	40.81	B
25	ATOM	2193	O	HIS	359B	56.288	51.004	88.491	1.00	41.41	B
	ATOM	2194	N	SER	360B	58.357	51.781	88.087	1.00	38.69	B
	ATOM	2195	CA	SER	360B	57.943	53.175	88.163	1.00	38.44	B
	ATOM	2196	CB	SER	360B	57.750	53.587	89.629	1.00	38.76	B
	ATOM	2197	OG	SER	360B	59.000	53.639	90.295	1.00	37.56	B
30	ATOM	2198	C	SER	360B	58.986	54.080	87.540	1.00	36.82	B
	ATOM	2199	O	SER	360B	60.096	53.644	87.242	1.00	36.19	B
	ATOM	2200	N	GLY	361B	58.626	55.348	87.362	1.00	36.23	B
	ATOM	2201	CA	GLY	361B	59.555	56.304	86.788	1.00	35.84	B
	ATOM	2202	C	GLY	361B	59.454	56.422	85.281	1.00	37.09	B
35	ATOM	2203	O	GLY	361B	58.588	55.811	84.643	1.00	36.29	B
	ATOM	2204	N	ILE	362B	60.345	57.222	84.711	1.00	36.68	B
	ATOM	2205	CA	ILE	362B	60.373	57.435	83.275	1.00	37.29	B
	ATOM	2206	CB	ILE	362B	60.814	58.866	82.954	1.00	38.61	B
	ATOM	2207	CG2	ILE	362B	60.685	59.130	81.451	1.00	36.48	B
40	ATOM	2208	CG1	ILE	362B	59.956	59.847	83.759	1.00	37.04	B
	ATOM	2209	CD	ILE	362B	60.488	61.248	83.756	1.00	40.13	B
	ATOM	2210	C	ILE	362B	61.357	56.461	82.650	1.00	38.07	B
	ATOM	2211	O	ILE	362B	62.568	56.625	82.787	1.00	38.57	B
	ATOM	2212	N	TYR	363B	60.833	55.445	81.970	1.00	38.58	B
45	ATOM	2213	CA	TYR	363B	61.670	54.437	81.320	1.00	38.64	B
	ATOM	2214	CB	TYR	363B	60.793	53.335	80.709	1.00	37.75	B
	ATOM	2215	CG	TYR	363B	61.550	52.295	79.898	1.00	38.84	B
	ATOM	2216	CD1	TYR	363B	62.268	51.273	80.519	1.00	35.65	B
	ATOM	2217	CE1	TYR	363B	62.984	50.340	79.774	1.00	36.50	B
50	ATOM	2218	CD2	TYR	363B	61.563	52.354	78.502	1.00	39.21	B
	ATOM	2219	CE2	TYR	363B	62.272	51.426	77.744	1.00	39.25	B
	ATOM	2220	CZ	TYR	363B	62.984	50.422	78.384	1.00	38.64	B
	ATOM	2221	OH	TYR	363B	63.715	49.533	77.627	1.00	34.87	B
	ATOM	2222	C	TYR	363B	62.576	55.024	80.228	1.00	39.91	B
55	ATOM	2223	O	TYR	363B	62.198	55.948	79.509	1.00	38.03	B
	ATOM	2224	N	HIS	364B	63.782	54.467	80.140	1.00	42.59	B
	ATOM	2225	CA	HIS	364B	64.796	54.834	79.154	1.00	44.31	B
	ATOM	2226	CB	HIS	364B	65.648	56.018	79.619	1.00	46.90	B
	ATOM	2227	CG	HIS	364B	66.891	56.208	78.805	1.00	53.54	B

	ATOM	2228	CD2	HIS	364B	68.194	55.962	79.094	1.00	55.02	B
	ATOM	2229	ND1	HIS	364B	66.864	56.623	77.487	1.00	55.47	B
	ATOM	2230	CE1	HIS	364B	68.095	56.621	77.000	1.00	56.21	B
	ATOM	2231	NE2	HIS	364B	68.920	56.223	77.955	1.00	56.01	B
5	ATOM	2232	C	HIS	364B	65.681	53.597	79.060	1.00	44.39	B
	ATOM	2233	O	HIS	364B	66.233	53.152	80.067	1.00	44.84	B
	ATOM	2234	N	HIS	365B	65.823	53.037	77.865	1.00	43.42	B
	ATOM	2235	CA	HIS	365B	66.630	51.833	77.708	1.00	42.69	B
	ATOM	2236	CB	HIS	365B	66.426	51.243	76.317	1.00	39.94	B
10	ATOM	2237	CG	HIS	365B	67.146	49.951	76.109	1.00	41.23	B
	ATOM	2238	CD2	HIS	365B	68.088	49.589	75.207	1.00	40.47	B
	ATOM	2239	ND1	HIS	365B	66.930	48.845	76.903	1.00	39.26	B
	ATOM	2240	CE1	HIS	365B	67.706	47.858	76.499	1.00	40.19	B
	ATOM	2241	NE2	HIS	365B	68.419	48.283	75.470	1.00	41.84	B
15	ATOM	2242	C	HIS	365B	68.117	52.056	77.964	1.00	40.88	B
	ATOM	2243	O	HIS	365B	68.747	52.880	77.307	1.00	41.60	B
	ATOM	2244	N	PRO	371B	66.920	57.166	49.012	1.00	51.20	B
	ATOM	2245	CD	PRO	371B	68.080	56.323	48.657	1.00	53.19	B
	ATOM	2246	CA	PRO	371B	65.693	56.363	49.085	1.00	51.16	B
20	ATOM	2247	CB	PRO	371B	66.123	55.017	48.498	1.00	51.20	B
	ATOM	2248	CG	PRO	371B	67.560	54.920	48.929	1.00	52.17	B
	ATOM	2249	C	PRO	371B	65.131	56.239	50.507	1.00	50.71	B
	ATOM	2250	O	PRO	371B	65.737	55.626	51.394	1.00	49.90	B
	ATOM	2251	N	PHE	372B	63.966	56.848	50.698	1.00	48.27	B
25	ATOM	2252	CA	PHE	372B	63.248	56.855	51.959	1.00	46.41	B
	ATOM	2253	CB	PHE	372B	61.898	57.555	51.728	1.00	46.35	B
	ATOM	2254	CG	PHE	372B	61.113	57.814	52.975	1.00	46.01	B
	ATOM	2255	CD1	PHE	372B	61.664	58.542	54.024	1.00	46.01	B
	ATOM	2256	CD2	PHE	372B	59.808	57.334	53.099	1.00	46.91	B
30	ATOM	2257	CE1	PHE	372B	60.927	58.790	55.183	1.00	45.87	B
	ATOM	2258	CE2	PHE	372B	59.061	57.576	54.255	1.00	44.89	B
	ATOM	2259	CZ	PHE	372B	59.623	58.305	55.298	1.00	45.28	B
	ATOM	2260	C	PHE	372B	63.053	55.417	52.474	1.00	45.41	B
	ATOM	2261	O	PHE	372B	62.831	54.492	51.695	1.00	44.79	B
35	ATOM	2262	N	ASN	373B	63.168	55.238	53.788	1.00	44.27	B
	ATOM	2263	CA	ASN	373B	62.991	53.937	54.435	1.00	43.16	B
	ATOM	2264	CB	ASN	373B	64.247	53.078	54.298	1.00	42.56	B
	ATOM	2265	CG	ASN	373B	64.022	51.649	54.773	1.00	45.24	B
	ATOM	2266	OD1	ASN	373B	63.153	51.391	55.610	1.00	43.59	B
40	ATOM	2267	ND2	ASN	373B	64.810	50.716	54.248	1.00	45.60	B
	ATOM	2268	C	ASN	373B	62.734	54.227	55.913	1.00	41.57	B
	ATOM	2269	O	ASN	373B	63.664	54.296	56.715	1.00	40.99	B
	ATOM	2270	N	PRO	374B	61.457	54.381	56.291	1.00	39.26	B
	ATOM	2271	CD	PRO	374B	60.266	54.212	55.440	1.00	38.14	B
45	ATOM	2272	CA	PRO	374B	61.061	54.680	57.665	1.00	38.21	B
	ATOM	2273	CB	PRO	374B	59.650	55.216	57.483	1.00	38.13	B
	ATOM	2274	CG	PRO	374B	59.124	54.294	56.446	1.00	37.83	B
	ATOM	2275	C	PRO	374B	61.093	53.532	58.663	1.00	37.32	B
	ATOM	2276	O	PRO	374B	60.776	53.737	59.828	1.00	37.66	B
50	ATOM	2277	N	PHE	375B	61.474	52.337	58.229	1.00	35.76	B
	ATOM	2278	CA	PHE	375B	61.472	51.199	59.139	1.00	34.69	B
	ATOM	2279	CB	PHE	375B	62.035	49.947	58.462	1.00	32.58	B
	ATOM	2280	CG	PHE	375B	61.988	48.729	59.344	1.00	32.34	B
	ATOM	2281	CD1	PHE	375B	60.791	48.056	59.554	1.00	29.70	B
55	ATOM	2282	CD2	PHE	375B	63.121	48.306	60.035	1.00	35.37	B
	ATOM	2283	CE1	PHE	375B	60.719	46.984	60.442	1.00	33.69	B
	ATOM	2284	CE2	PHE	375B	63.060	47.235	60.929	1.00	34.52	B
	ATOM	2285	CZ	PHE	375B	61.857	46.575	61.132	1.00	33.16	B
	ATOM	2286	C	PHE	375B	62.193	51.390	60.477	1.00	34.40	B

	ATOM	2287	O	PHE	375B	63.314	51.894	60.541	1.00	32.75	B
	ATOM	2288	N	GLU	376B	61.520	50.972	61.541	1.00	34.78	B
	ATOM	2289	CA	GLU	376B	62.051	51.024	62.896	1.00	36.20	B
	ATOM	2290	CB	GLU	376B	61.688	52.333	63.602	1.00	37.38	B
5	ATOM	2291	CG	GLU	376B	62.551	53.530	63.230	1.00	39.75	B
	ATOM	2292	CD	GLU	376B	62.184	54.774	64.022	1.00	42.59	B
	ATOM	2293	OE1	GLU	376B	62.135	54.693	65.270	1.00	44.21	B
	ATOM	2294	OE2	GLU	376B	61.942	55.835	63.400	1.00	44.97	B
	ATOM	2295	C	GLU	376B	61.411	49.862	63.624	1.00	37.49	B
10	ATOM	2296	O	GLU	376B	60.198	49.842	63.823	1.00	38.70	B
	ATOM	2297	N	LEU	377B	62.235	48.896	64.011	1.00	38.78	B
	ATOM	2298	CA	LEU	377B	61.789	47.689	64.704	1.00	38.64	B
	ATOM	2299	CB	LEU	377B	63.013	46.834	65.065	1.00	39.56	B
	ATOM	2300	CG	LEU	377B	62.838	45.548	65.890	1.00	43.61	B
15	ATOM	2301	CD1	LEU	377B	62.353	44.423	65.005	1.00	42.89	B
	ATOM	2302	CD2	LEU	377B	64.169	45.156	66.515	1.00	43.68	B
	ATOM	2303	C	LEU	377B	60.951	47.925	65.965	1.00	37.07	B
	ATOM	2304	O	LEU	377B	61.324	48.700	66.838	1.00	37.43	B
	ATOM	2305	N	THR	378B	59.818	47.239	66.049	1.00	36.15	B
20	ATOM	2306	CA	THR	378B	58.946	47.313	67.217	1.00	37.08	B
	ATOM	2307	CB	THR	378B	57.675	48.154	66.957	1.00	36.22	B
	ATOM	2308	OG1	THR	378B	56.944	47.578	65.871	1.00	40.81	B
	ATOM	2309	CG2	THR	378B	58.031	49.588	66.616	1.00	35.33	B
	ATOM	2310	C	THR	378B	58.520	45.873	67.482	1.00	36.36	B
25	ATOM	2311	O	THR	378B	58.690	45.015	66.617	1.00	35.95	B
	ATOM	2312	N	ASN	379B	57.996	45.600	68.673	1.00	34.60	B
	ATOM	2313	CA	ASN	379B	57.537	44.256	68.999	1.00	34.89	B
	ATOM	2314	CB	ASN	379B	58.680	43.367	69.538	1.00	34.18	B
	ATOM	2315	CG	ASN	379B	59.309	43.904	70.819	1.00	37.07	B
30	ATOM	2316	OD1	ASN	379B	58.626	44.416	71.710	1.00	37.49	B
	ATOM	2317	ND2	ASN	379B	60.624	43.770	70.922	1.00	38.66	B
	ATOM	2318	C	ASN	379B	56.398	44.284	70.001	1.00	35.66	B
	ATOM	2319	O	ASN	379B	56.055	43.259	70.583	1.00	38.17	B
	ATOM	2320	N	HIS	380B	55.804	45.453	70.203	1.00	36.29	B
35	ATOM	2321	CA	HIS	380B	54.696	45.574	71.145	1.00	35.90	B
	ATOM	2322	CB	HIS	380B	55.244	45.695	72.573	1.00	35.84	B
	ATOM	2323	CG	HIS	380B	54.205	45.550	73.639	1.00	33.97	B
	ATOM	2324	CD2	HIS	380B	53.956	46.287	74.746	1.00	37.47	B
	ATOM	2325	ND1	HIS	380B	53.289	44.522	73.650	1.00	36.68	B
40	ATOM	2326	CE1	HIS	380B	52.517	44.632	74.716	1.00	37.18	B
	ATOM	2327	NE2	HIS	380B	52.902	45.694	75.399	1.00	36.47	B
	ATOM	2328	C	HIS	380B	53.807	46.772	70.810	1.00	35.82	B
	ATOM	2329	O	HIS	380B	54.298	47.830	70.414	1.00	37.75	B
	ATOM	2330	N	ALA	381B	52.498	46.598	70.965	1.00	35.04	B
45	ATOM	2331	CA	ALA	381B	51.546	47.661	70.683	1.00	34.17	B
	ATOM	2332	CB	ALA	381B	50.533	47.186	69.648	1.00	33.51	B
	ATOM	2333	C	ALA	381B	50.833	48.104	71.963	1.00	33.72	B
	ATOM	2334	O	ALA	381B	50.292	47.281	72.698	1.00	35.08	B
	ATOM	2335	N	VAL	382B	50.838	49.409	72.219	1.00	33.30	B
50	ATOM	2336	CA	VAL	382B	50.208	49.975	73.405	1.00	34.02	B
	ATOM	2337	CB	VAL	382B	51.268	50.279	74.477	1.00	33.11	B
	ATOM	2338	CG1	VAL	382B	51.829	48.971	75.021	1.00	33.78	B
	ATOM	2339	CG2	VAL	382B	52.391	51.117	73.874	1.00	31.36	B
	ATOM	2340	C	VAL	382B	49.425	51.253	73.095	1.00	35.93	B
55	ATOM	2341	O	VAL	382B	49.457	51.754	71.972	1.00	35.98	B
	ATOM	2342	N	LEU	383B	48.736	51.785	74.102	1.00	36.17	B
	ATOM	2343	CA	LEU	383B	47.926	52.980	73.932	1.00	34.99	B
	ATOM	2344	CB	LEU	383B	46.529	52.728	74.500	1.00	35.30	B
	ATOM	2345	CG	LEU	383B	45.433	53.763	74.219	1.00	34.59	B

	ATOM	2346	CD1	LEU	383B	45.088	53.786	72.732	1.00	31.88	B
	ATOM	2347	CD2	LEU	383B	44.199	53.408	75.036	1.00	33.70	B
	ATOM	2348	C	LEU	383B	48.502	54.245	74.564	1.00	37.15	B
	ATOM	2349	O	LEU	383B	48.683	54.314	75.778	1.00	37.18	B
5	ATOM	2350	N	LEU	384B	48.785	55.247	73.727	1.00	37.75	B
	ATOM	2351	CA	LEU	384B	49.303	56.531	74.195	1.00	37.23	B
	ATOM	2352	CB	LEU	384B	49.751	57.396	73.017	1.00	36.86	B
	ATOM	2353	CG	LEU	384B	50.982	58.285	73.186	1.00	36.02	B
	ATOM	2354	CD1	LEU	384B	50.937	59.368	72.122	1.00	34.11	B
10	ATOM	2355	CD2	LEU	384B	51.022	58.902	74.570	1.00	35.96	B
	ATOM	2356	C	LEU	384B	48.100	57.178	74.870	1.00	37.52	B
	ATOM	2357	O	LEU	384B	47.016	57.218	74.289	1.00	39.15	B
	ATOM	2358	N	VAL	385B	48.287	57.682	76.084	1.00	35.20	B
	ATOM	2359	CA	VAL	385B	47.193	58.277	76.840	1.00	33.58	B
15	ATOM	2360	CB	VAL	385B	46.872	57.378	78.076	1.00	34.43	B
	ATOM	2361	CG1	VAL	385B	46.179	58.165	79.155	1.00	37.82	B
	ATOM	2362	CG2	VAL	385B	45.997	56.217	77.645	1.00	31.81	B
	ATOM	2363	C	VAL	385B	47.435	59.725	77.285	1.00	33.08	B
	ATOM	2364	O	VAL	385B	46.485	60.466	77.518	1.00	34.25	B
20	ATOM	2365	N	GLY	386B	48.694	60.133	77.394	1.00	32.38	B
	ATOM	2366	CA	GLY	386B	48.980	61.491	77.822	1.00	32.74	B
	ATOM	2367	C	GLY	386B	50.455	61.831	77.824	1.00	34.13	B
	ATOM	2368	O	GLY	386B	51.278	61.060	77.329	1.00	35.44	B
	ATOM	2369	N	TYR	387B	50.796	62.992	78.372	1.00	34.50	B
25	ATOM	2370	CA	TYR	387B	52.192	63.414	78.440	1.00	37.00	B
	ATOM	2371	CB	TYR	387B	52.659	63.943	77.081	1.00	34.79	B
	ATOM	2372	CG	TYR	387B	51.922	65.178	76.596	1.00	38.96	B
	ATOM	2373	CD1	TYR	387B	52.248	66.452	77.078	1.00	39.29	B
	ATOM	2374	CE1	TYR	387B	51.592	67.588	76.611	1.00	39.01	B
30	ATOM	2375	CD2	TYR	387B	50.909	65.078	75.635	1.00	37.50	B
	ATOM	2376	CE2	TYR	387B	50.245	66.208	75.166	1.00	38.27	B
	ATOM	2377	CZ	TYR	387B	50.589	67.456	75.657	1.00	40.42	B
	ATOM	2378	OH	TYR	387B	49.913	68.567	75.214	1.00	42.07	B
	ATOM	2379	C	TYR	387B	52.415	64.469	79.515	1.00	38.16	B
35	ATOM	2380	O	TYR	387B	51.477	65.134	79.963	1.00	40.01	B
	ATOM	2381	N	GLY	388B	53.668	64.615	79.929	1.00	39.62	B
	ATOM	2382	CA	GLY	388B	54.000	65.586	80.950	1.00	39.94	B
	ATOM	2383	C	GLY	388B	55.490	65.836	80.990	1.00	42.99	B
	ATOM	2384	O	GLY	388B	56.206	65.577	80.020	1.00	41.97	B
40	ATOM	2385	N	LYS	389B	55.960	66.345	82.119	1.00	46.05	B
	ATOM	2386	CA	LYS	389B	57.373	66.645	82.304	1.00	48.44	B
	ATOM	2387	CB	LYS	389B	57.662	68.085	81.857	1.00	48.57	B
	ATOM	2388	CG	LYS	389B	59.059	68.581	82.191	1.00	50.12	B
	ATOM	2389	CD	LYS	389B	59.267	70.024	81.732	1.00	51.35	B
45	ATOM	2390	CE	LYS	389B	59.315	70.130	80.196	1.00	52.41	B
	ATOM	2391	NZ	LYS	389B	59.709	71.495	79.719	1.00	51.63	B
	ATOM	2392	C	LYS	389B	57.689	66.485	83.786	1.00	50.08	B
	ATOM	2393	O	LYS	389B	57.041	67.120	84.623	1.00	50.05	B
	ATOM	2394	N	ASP	390B	58.661	65.635	84.120	1.00	52.67	B
50	ATOM	2395	CA	ASP	390B	59.006	65.449	85.527	1.00	57.00	B
	ATOM	2396	CB	ASP	390B	60.166	64.472	85.705	1.00	59.32	B
	ATOM	2397	CG	ASP	390B	60.369	64.072	87.173	1.00	62.88	B
	ATOM	2398	OD1	ASP	390B	60.712	62.887	87.427	1.00	62.92	B
	ATOM	2399	OD2	ASP	390B	60.190	64.947	88.065	1.00	62.85	B
55	ATOM	2400	C	ASP	390B	59.384	66.815	86.086	1.00	58.35	B
	ATOM	2401	O	ASP	390B	60.223	67.521	85.515	1.00	58.86	B
	ATOM	2402	N	PRO	391B	58.760	67.209	87.206	1.00	59.35	B
	ATOM	2403	CD	PRO	391B	57.745	66.439	87.950	1.00	59.43	B
	ATOM	2404	CA	PRO	391B	59.015	68.504	87.848	1.00	61.35	B

	ATOM	2405	CB	PRO	391B	57.866	68.617	88.849	1.00	60.57	B
	ATOM	2406	CG	PRO	391B	57.671	67.178	89.275	1.00	60.17	B
	ATOM	2407	C	PRO	391B	60.391	68.691	88.499	1.00	62.66	B
	ATOM	2408	O	PRO	391B	60.777	69.826	88.825	1.00	63.66	B
5	ATOM	2409	N	VAL	392B	61.140	67.605	88.681	1.00	62.85	B
	ATOM	2410	CA	VAL	392B	62.454	67.732	89.298	1.00	63.40	B
	ATOM	2411	CB	VAL	392B	62.701	66.615	90.333	1.00	65.21	B
	ATOM	2412	CG1	VAL	392B	63.973	66.915	91.116	1.00	66.11	B
	ATOM	2413	CG2	VAL	392B	61.506	66.505	91.286	1.00	64.46	B
10	ATOM	2414	C	VAL	392B	63.544	67.689	88.239	1.00	63.33	B
	ATOM	2415	O	VAL	392B	64.340	68.621	88.102	1.00	65.13	B
	ATOM	2416	N	THR	393B	63.596	66.605	87.481	1.00	62.90	B
	ATOM	2417	CA	THR	393B	64.596	66.500	86.426	1.00	62.30	B
	ATOM	2418	CB	THR	393B	64.706	65.078	85.937	1.00	63.21	B
15	ATOM	2419	OG1	THR	393B	63.506	64.746	85.221	1.00	64.38	B
	ATOM	2420	CG2	THR	393B	64.877	64.126	87.132	1.00	63.53	B
	ATOM	2421	C	THR	393B	64.204	67.365	85.225	1.00	61.17	B
	ATOM	2422	O	THR	393B	65.067	67.941	84.564	1.00	62.24	B
	ATOM	2423	N	GLY	394B	62.908	67.453	84.937	1.00	59.39	B
20	ATOM	2424	CA	GLY	394B	62.459	68.246	83.800	1.00	56.42	B
	ATOM	2425	C	GLY	394B	62.380	67.387	82.547	1.00	55.12	B
	ATOM	2426	O	GLY	394B	62.311	67.898	81.423	1.00	55.56	B
	ATOM	2427	N	LEU	395B	62.380	66.071	82.761	1.00	52.18	B
	ATOM	2428	CA	LEU	395B	62.320	65.071	81.702	1.00	48.93	B
25	ATOM	2429	CB	LEU	395B	62.792	63.729	82.259	1.00	51.90	B
	ATOM	2430	CG	LEU	395B	64.106	63.156	81.730	1.00	55.53	B
	ATOM	2431	CD1	LEU	395B	64.351	61.771	82.352	1.00	54.99	B
	ATOM	2432	CD2	LEU	395B	64.042	63.070	80.192	1.00	56.10	B
	ATOM	2433	C	LEU	395B	60.944	64.859	81.054	1.00	45.88	B
30	ATOM	2434	O	LEU	395B	60.026	64.337	81.689	1.00	43.86	B
	ATOM	2435	N	ASP	396B	60.809	65.235	79.785	1.00	41.65	B
	ATOM	2436	CA	ASP	396B	59.552	65.033	79.070	1.00	40.06	B
	ATOM	2437	CB	ASP	396B	59.639	65.651	77.670	1.00	39.93	B
	ATOM	2438	CG	ASP	396B	59.678	67.162	77.704	1.00	41.39	B
35	ATOM	2439	OD1	ASP	396B	59.689	67.724	78.823	1.00	43.90	B
	ATOM	2440	OD2	ASP	396B	59.692	67.790	76.621	1.00	39.54	B
	ATOM	2441	C	ASP	396B	59.250	63.531	78.946	1.00	38.18	B
	ATOM	2442	O	ASP	396B	60.142	62.725	78.663	1.00	38.26	B
	ATOM	2443	N	TYR	397B	57.996	63.151	79.161	1.00	36.37	B
40	ATOM	2444	CA	TYR	397B	57.613	61.744	79.061	1.00	35.60	B
	ATOM	2445	CB	TYR	397B	57.610	61.081	80.443	1.00	35.29	B
	ATOM	2446	CG	TYR	397B	56.675	61.729	81.441	1.00	37.54	B
	ATOM	2447	CD1	TYR	397B	57.142	62.682	82.347	1.00	39.42	B
	ATOM	2448	CE1	TYR	397B	56.285	63.304	83.248	1.00	40.06	B
45	ATOM	2449	CD2	TYR	397B	55.318	61.411	81.463	1.00	39.16	B
	ATOM	2450	CE2	TYR	397B	54.446	62.030	82.361	1.00	42.00	B
	ATOM	2451	CZ	TYR	397B	54.940	62.977	83.250	1.00	42.61	B
	ATOM	2452	OH	TYR	397B	54.087	63.608	84.124	1.00	43.60	B
	ATOM	2453	C	TYR	397B	56.244	61.545	78.426	1.00	35.33	B
50	ATOM	2454	O	TYR	397B	55.498	62.501	78.224	1.00	35.61	B
	ATOM	2455	N	TRP	398B	55.933	60.293	78.104	1.00	33.78	B
	ATOM	2456	CA	TRP	398B	54.641	59.933	77.535	1.00	33.69	B
	ATOM	2457	CB	TRP	398B	54.780	59.075	76.263	1.00	32.40	B
	ATOM	2458	CG	TRP	398B	55.316	59.758	75.027	1.00	33.79	B
55	ATOM	2459	CD2	TRP	398B	54.657	60.755	74.227	1.00	32.93	B
	ATOM	2460	CE2	TRP	398B	55.517	61.056	73.146	1.00	34.17	B
	ATOM	2461	CE3	TRP	398B	53.426	61.423	74.320	1.00	33.92	B
	ATOM	2462	CD1	TRP	398B	56.510	59.508	74.413	1.00	33.56	B
	ATOM	2463	NE1	TRP	398B	56.637	60.282	73.286	1.00	34.54	B

	ATOM	2464	CZ2	TRP	398B	55.186	61.997	72.160	1.00	35.04	B
	ATOM	2465	CZ3	TRP	398B	53.095	62.362	73.338	1.00	32.81	B
	ATOM	2466	CH2	TRP	398B	53.974	62.639	72.273	1.00	34.74	B
	ATOM	2467	C	TRP	398B	53.987	59.071	78.605	1.00	34.71	B
5	ATOM	2468	O	TRP	398B	54.685	58.440	79.396	1.00	34.73	B
	ATOM	2469	N	ILE	399B	52.657	59.055	78.638	1.00	35.69	B
	ATOM	2470	CA	ILE	399B	51.922	58.225	79.584	1.00	36.37	B
	ATOM	2471	CB	ILE	399B	50.840	59.028	80.324	1.00	36.84	B
	ATOM	2472	CG2	ILE	399B	50.122	58.132	81.329	1.00	35.99	B
10	ATOM	2473	CG1	ILE	399B	51.484	60.227	81.024	1.00	35.72	B
	ATOM	2474	CD	ILE	399B	50.494	61.154	81.694	1.00	34.98	B
	ATOM	2475	C	ILE	399B	51.276	57.167	78.697	1.00	37.39	B
	ATOM	2476	O	ILE	399B	50.426	57.484	77.863	1.00	36.68	B
	ATOM	2477	N	VAL	400B	51.693	55.913	78.870	1.00	37.66	B
15	ATOM	2478	CA	VAL	400B	51.200	54.820	78.047	1.00	36.38	B
	ATOM	2479	CB	VAL	400B	52.368	54.203	77.232	1.00	35.76	B
	ATOM	2480	CG1	VAL	400B	51.833	53.267	76.169	1.00	33.36	B
	ATOM	2481	CG2	VAL	400B	53.201	55.304	76.605	1.00	31.55	B
	ATOM	2482	C	VAL	400B	50.485	53.709	78.816	1.00	38.40	B
20	ATOM	2483	O	VAL	400B	50.863	53.359	79.939	1.00	38.34	B
	ATOM	2484	N	LYS	401B	49.451	53.156	78.181	1.00	39.07	B
	ATOM	2485	CA	LYS	401B	48.641	52.084	78.753	1.00	38.53	B
	ATOM	2486	CB	LYS	401B	47.161	52.323	78.427	1.00	36.94	B
	ATOM	2487	CG	LYS	401B	46.207	51.310	79.027	1.00	38.13	B
25	ATOM	2488	CD	LYS	401B	44.777	51.545	78.552	1.00	35.72	B
	ATOM	2489	CE	LYS	401B	43.840	50.493	79.106	1.00	35.53	B
	ATOM	2490	NZ	LYS	401B	42.423	50.725	78.710	1.00	34.61	B
	ATOM	2491	C	LYS	401B	49.072	50.720	78.217	1.00	38.85	B
	ATOM	2492	O	LYS	401B	48.926	50.435	77.020	1.00	38.30	B
30	ATOM	2493	N	ASN	402B	49.604	49.882	79.108	1.00	38.02	B
	ATOM	2494	CA	ASN	402B	50.047	48.547	78.723	1.00	37.30	B
	ATOM	2495	CB	ASN	402B	51.197	48.074	79.621	1.00	36.54	B
	ATOM	2496	CG	ASN	402B	52.193	47.171	78.884	1.00	36.91	B
	ATOM	2497	OD1	ASN	402B	51.861	46.545	77.878	1.00	37.33	B
35	ATOM	2498	ND2	ASN	402B	53.417	47.096	79.399	1.00	34.90	B
	ATOM	2499	C	ASN	402B	48.875	47.573	78.837	1.00	37.54	B
	ATOM	2500	O	ASN	402B	47.791	47.936	79.298	1.00	37.86	B
	ATOM	2501	N	SER	403B	49.104	46.333	78.415	1.00	38.10	B
	ATOM	2502	CA	SER	403B	48.085	45.291	78.459	1.00	38.42	B
40	ATOM	2503	CB	SER	403B	47.635	44.942	77.033	1.00	36.80	B
	ATOM	2504	OG	SER	403B	48.738	44.632	76.201	1.00	32.67	B
	ATOM	2505	C	SER	403B	48.590	44.031	79.180	1.00	38.77	B
	ATOM	2506	O	SER	403B	48.400	42.904	78.711	1.00	39.01	B
	ATOM	2507	N	TRP	404B	49.231	44.230	80.326	1.00	39.84	B
45	ATOM	2508	CA	TRP	404B	49.760	43.118	81.111	1.00	40.56	B
	ATOM	2509	CB	TRP	404B	51.293	43.164	81.159	1.00	38.71	B
	ATOM	2510	CG	TRP	404B	51.967	43.146	79.822	1.00	35.36	B
	ATOM	2511	CD2	TRP	404B	53.307	43.554	79.540	1.00	35.42	B
	ATOM	2512	CE2	TRP	404B	53.531	43.332	78.159	1.00	35.00	B
50	ATOM	2513	CE3	TRP	404B	54.348	44.085	80.321	1.00	34.80	B
	ATOM	2514	CD1	TRP	404B	51.442	42.702	78.638	1.00	35.70	B
	ATOM	2515	NE1	TRP	404B	52.377	42.812	77.635	1.00	36.18	B
	ATOM	2516	CZ2	TRP	404B	54.753	43.624	77.538	1.00	33.90	B
	ATOM	2517	CZ3	TRP	404B	55.565	44.375	79.706	1.00	33.91	B
55	ATOM	2518	CH2	TRP	404B	55.755	44.144	78.324	1.00	34.18	B
	ATOM	2519	C	TRP	404B	49.223	43.157	82.535	1.00	41.05	B
	ATOM	2520	O	TRP	404B	49.955	42.881	83.485	1.00	44.10	B
	ATOM	2521	N	GLY	405B	47.950	43.507	82.679	1.00	41.16	B
	ATOM	2522	CA	GLY	405B	47.348	43.582	83.995	1.00	39.79	B

	ATOM	2523	C	GLY	405B	47.635	44.890	84.711	1.00	41.33	B
	ATOM	2524	O	GLY	405B	48.640	45.554	84.461	1.00	38.14	B
	ATOM	2525	N	SER	406B	46.736	45.259	85.613	1.00	43.65	B
	ATOM	2526	CA	SER	406B	46.876	46.483	86.389	1.00	46.77	B
5	ATOM	2527	CB	SER	406B	45.527	46.865	86.998	1.00	47.34	B
	ATOM	2528	OG	SER	406B	44.927	45.731	87.604	1.00	48.75	B
	ATOM	2529	C	SER	406B	47.893	46.278	87.498	1.00	48.33	B
	ATOM	2530	O	SER	406B	48.183	47.189	88.269	1.00	48.81	B
	ATOM	2531	N	GLN	407B	48.454	45.080	87.562	1.00	50.58	B
10	ATOM	2532	CA	GLN	407B	49.427	44.755	88.592	1.00	53.44	B
	ATOM	2533	CB	GLN	407B	49.289	43.266	88.929	1.00	58.12	B
	ATOM	2534	CG	GLN	407B	49.868	42.829	90.274	1.00	64.69	B
	ATOM	2535	CD	GLN	407B	49.625	41.338	90.559	1.00	68.94	B
	ATOM	2536	OE1	GLN	407B	48.465	40.899	90.704	1.00	69.93	B
15	ATOM	2537	NE2	GLN	407B	50.716	40.553	90.636	1.00	68.46	B
	ATOM	2538	C	GLN	407B	50.857	45.095	88.139	1.00	52.34	B
	ATOM	2539	O	GLN	407B	51.760	45.241	88.964	1.00	53.06	B
	ATOM	2540	N	TRP	408B	51.047	45.237	86.828	1.00	50.52	B
	ATOM	2541	CA	TRP	408B	52.355	45.559	86.236	1.00	47.15	B
20	ATOM	2542	CB	TRP	408B	52.446	44.958	84.826	1.00	47.62	B
	ATOM	2543	CG	TRP	408B	53.750	45.233	84.121	1.00	45.42	B
	ATOM	2544	CD2	TRP	408B	54.076	46.391	83.345	1.00	44.59	B
	ATOM	2545	CE2	TRP	408B	55.411	46.239	82.909	1.00	45.35	B
	ATOM	2546	CE3	TRP	408B	53.369	47.549	82.979	1.00	43.59	B
25	ATOM	2547	CD1	TRP	408B	54.864	44.447	84.124	1.00	44.59	B
	ATOM	2548	NE1	TRP	408B	55.868	45.044	83.400	1.00	44.36	B
	ATOM	2549	CZ2	TRP	408B	56.060	47.204	82.121	1.00	44.10	B
	ATOM	2550	CZ3	TRP	408B	54.015	48.510	82.197	1.00	43.37	B
	ATOM	2551	CH2	TRP	408B	55.347	48.328	81.778	1.00	44.52	B
30	ATOM	2552	C	TRP	408B	52.603	47.073	86.147	1.00	45.08	B
	ATOM	2553	O	TRP	408B	51.662	47.855	86.004	1.00	43.86	B
	ATOM	2554	N	GLY	409B	53.874	47.472	86.211	1.00	42.82	B
	ATOM	2555	CA	GLY	409B	54.230	48.882	86.142	1.00	43.46	B
	ATOM	2556	C	GLY	409B	53.485	49.782	87.126	1.00	43.66	B
35	ATOM	2557	O	GLY	409B	53.271	49.419	88.286	1.00	44.21	B
	ATOM	2558	N	GLU	410B	53.100	50.969	86.668	1.00	41.49	B
	ATOM	2559	CA	GLU	410B	52.367	51.908	87.506	1.00	40.52	B
	ATOM	2560	CB	GLU	410B	52.809	53.344	87.193	1.00	40.01	B
	ATOM	2561	CG	GLU	410B	54.324	53.534	87.299	1.00	41.69	B
40	ATOM	2562	CD	GLU	410B	54.781	54.972	87.091	1.00	43.58	B
	ATOM	2563	OE1	GLU	410B	54.306	55.623	86.139	1.00	44.12	B
	ATOM	2564	OE2	GLU	410B	55.636	55.454	87.871	1.00	46.45	B
	ATOM	2565	C	GLU	410B	50.862	51.721	87.270	1.00	40.34	B
	ATOM	2566	O	GLU	410B	50.240	52.445	86.492	1.00	39.21	B
45	ATOM	2567	N	SER	411B	50.304	50.718	87.944	1.00	39.75	B
	ATOM	2568	CA	SER	411B	48.887	50.378	87.865	1.00	39.86	B
	ATOM	2569	CB	SER	411B	48.034	51.523	88.426	1.00	40.77	B
	ATOM	2570	OG	SER	411B	48.586	52.021	89.638	1.00	40.69	B
	ATOM	2571	C	SER	411B	48.462	50.074	86.436	1.00	39.90	B
50	ATOM	2572	O	SER	411B	47.395	50.488	85.998	1.00	40.37	B
	ATOM	2573	N	GLY	412B	49.304	49.346	85.714	1.00	39.58	B
	ATOM	2574	CA	GLY	412B	48.986	48.995	84.344	1.00	39.11	B
	ATOM	2575	C	GLY	412B	49.601	49.939	83.326	1.00	38.97	B
	ATOM	2576	O	GLY	412B	49.657	49.617	82.137	1.00	38.82	B
55	ATOM	2577	N	TYR	413B	50.055	51.101	83.795	1.00	37.74	B
	ATOM	2578	CA	TYR	413B	50.667	52.109	82.931	1.00	38.61	B
	ATOM	2579	CB	TYR	413B	50.063	53.503	83.176	1.00	37.31	B
	ATOM	2580	CG	TYR	413B	48.621	53.650	82.763	1.00	39.20	B
	ATOM	2581	CD1	TYR	413B	47.592	53.157	83.567	1.00	39.62	B

	ATOM	2582	CE1	TYR	413B	46.258	53.259	83.179	1.00	40.57	B
	ATOM	2583	CD2	TYR	413B	48.282	54.256	81.551	1.00	38.25	B
	ATOM	2584	CE2	TYR	413B	46.951	54.361	81.150	1.00	40.64	B
	ATOM	2585	CZ	TYR	413B	45.947	53.859	81.969	1.00	41.06	B
5	ATOM	2586	OH	TYR	413B	44.636	53.935	81.575	1.00	39.50	B
	ATOM	2587	C	TYR	413B	52.162	52.228	83.139	1.00	38.81	B
	ATOM	2588	O	TYR	413B	52.728	51.660	84.070	1.00	40.05	B
	ATOM	2589	N	PHE	414B	52.793	52.991	82.256	1.00	39.10	B
	ATOM	2590	CA	PHE	414B	54.216	53.242	82.352	1.00	36.68	B
10	ATOM	2591	CB	PHE	414B	55.011	52.103	81.693	1.00	34.28	B
	ATOM	2592	CG	PHE	414B	54.990	52.109	80.192	1.00	33.79	B
	ATOM	2593	CD1	PHE	414B	55.938	52.827	79.474	1.00	32.09	B
	ATOM	2594	CD2	PHE	414B	54.059	51.348	79.492	1.00	34.20	B
	ATOM	2595	CE1	PHE	414B	55.967	52.785	78.087	1.00	31.45	B
15	ATOM	2596	CE2	PHE	414B	54.080	51.300	78.096	1.00	33.49	B
	ATOM	2597	CZ	PHE	414B	55.035	52.019	77.396	1.00	32.79	B
	ATOM	2598	C	PHE	414B	54.521	54.592	81.713	1.00	37.28	B
	ATOM	2599	O	PHE	414B	53.831	55.028	80.791	1.00	36.20	B
	ATOM	2600	N	ARG	415B	55.532	55.266	82.245	1.00	38.22	B
20	ATOM	2601	CA	ARG	415B	55.962	56.565	81.746	1.00	38.66	B
	ATOM	2602	CB	ARG	415B	56.346	57.485	82.909	1.00	40.09	B
	ATOM	2603	CG	ARG	415B	55.563	58.776	83.043	1.00	40.22	B
	ATOM	2604	CD	ARG	415B	54.626	58.758	84.252	1.00	41.58	B
	ATOM	2605	NE	ARG	415B	55.289	58.294	85.469	1.00	43.62	B
25	ATOM	2606	CZ	ARG	415B	56.170	58.998	86.181	1.00	44.94	B
	ATOM	2607	NH1	ARG	415B	56.510	60.230	85.819	1.00	44.20	B
	ATOM	2608	NH2	ARG	415B	56.734	58.451	87.251	1.00	45.25	B
	ATOM	2609	C	ARG	415B	57.205	56.262	80.929	1.00	38.49	B
	ATOM	2610	O	ARG	415B	58.041	55.470	81.354	1.00	39.43	B
30	ATOM	2611	N	ILE	416B	57.335	56.878	79.763	1.00	38.28	B
	ATOM	2612	CA	ILE	416B	58.505	56.645	78.932	1.00	36.26	B
	ATOM	2613	CB	ILE	416B	58.181	55.702	77.753	1.00	36.74	B
	ATOM	2614	CG2	ILE	416B	57.195	56.381	76.799	1.00	36.95	B
	ATOM	2615	CG1	ILE	416B	59.474	55.315	77.022	1.00	35.75	B
35	ATOM	2616	CD	ILE	416B	59.321	54.155	76.048	1.00	31.47	B
	ATOM	2617	C	ILE	416B	59.019	57.972	78.408	1.00	36.06	B
	ATOM	2618	O	ILE	416B	58.260	58.913	78.219	1.00	36.68	B
	ATOM	2619	N	ARG	417B	60.321	58.042	78.182	1.00	38.25	B
	ATOM	2620	CA	ARG	417B	60.943	59.263	77.701	1.00	40.17	B
40	ATOM	2621	CB	ARG	417B	62.446	59.037	77.530	1.00	44.10	B
	ATOM	2622	CG	ARG	417B	63.237	60.297	77.236	1.00	48.61	B
	ATOM	2623	CD	ARG	417B	64.732	60.050	77.402	1.00	52.98	B
	ATOM	2624	NE	ARG	417B	65.082	59.691	78.779	1.00	55.54	B
	ATOM	2625	CZ	ARG	417B	66.328	59.701	79.254	1.00	57.09	B
45	ATOM	2626	NH1	ARG	417B	67.341	60.052	78.457	1.00	55.64	B
	ATOM	2627	NH2	ARG	417B	66.564	59.373	80.522	1.00	56.47	B
	ATOM	2628	C	ARG	417B	60.324	59.756	76.396	1.00	39.45	B
	ATOM	2629	O	ARG	417B	60.069	58.978	75.472	1.00	37.39	B
	ATOM	2630	N	ARG	418B	60.098	61.062	76.334	1.00	38.34	B
50	ATOM	2631	CA	ARG	418B	59.490	61.692	75.176	1.00	37.76	B
	ATOM	2632	CB	ARG	418B	58.228	62.435	75.618	1.00	38.54	B
	ATOM	2633	CG	ARG	418B	57.671	63.446	74.615	1.00	39.33	B
	ATOM	2634	CD	ARG	418B	56.245	63.852	74.990	1.00	36.59	B
	ATOM	2635	NE	ARG	418B	56.179	64.569	76.257	1.00	37.34	B
55	ATOM	2636	CZ	ARG	418B	56.225	65.894	76.369	1.00	37.24	B
	ATOM	2637	NH1	ARG	418B	56.339	66.655	75.284	1.00	35.31	B
	ATOM	2638	NH2	ARG	418B	56.146	66.457	77.566	1.00	34.07	B
	ATOM	2639	C	ARG	418B	60.413	62.646	74.444	1.00	38.33	B
	ATOM	2640	O	ARG	418B	61.229	63.335	75.058	1.00	39.03	B

	ATOM	2641	N	GLY	419B	60.281	62.680	73.121	1.00	38.88	B
	ATOM	2642	CA	GLY	419B	61.085	63.583	72.317	1.00	38.85	B
	ATOM	2643	C	GLY	419B	62.360	63.008	71.740	1.00	39.20	B
	ATOM	2644	O	GLY	419B	63.069	63.708	71.016	1.00	40.52	B
5	ATOM	2645	N	THR	420B	62.658	61.748	72.047	1.00	38.50	B
	ATOM	2646	CA	THR	420B	63.872	61.108	71.541	1.00	37.34	B
	ATOM	2647	CB	THR	420B	64.893	60.854	72.685	1.00	38.23	B
	ATOM	2648	OG1	THR	420B	64.343	59.934	73.635	1.00	39.26	B
	ATOM	2649	CG2	THR	420B	65.226	62.154	73.403	1.00	38.55	B
10	ATOM	2650	C	THR	420B	63.572	59.774	70.857	1.00	37.35	B
	ATOM	2651	O	THR	420B	64.435	58.902	70.780	1.00	36.44	B
	ATOM	2652	N	ASP	421B	62.346	59.622	70.365	1.00	37.25	B
	ATOM	2653	CA	ASP	421B	61.930	58.395	69.696	1.00	37.59	B
	ATOM	2654	CB	ASP	421B	62.461	58.379	68.259	1.00	35.28	B
15	ATOM	2655	CG	ASP	421B	61.946	57.203	67.456	1.00	35.10	B
	ATOM	2656	OD1	ASP	421B	60.755	56.845	67.585	1.00	34.32	B
	ATOM	2657	OD2	ASP	421B	62.739	56.640	66.677	1.00	37.00	B
	ATOM	2658	C	ASP	421B	62.444	57.189	70.478	1.00	39.20	B
	ATOM	2659	O	ASP	421B	62.952	56.221	69.904	1.00	40.60	B
20	ATOM	2660	N	GLU	422B	62.311	57.275	71.800	1.00	38.16	B
	ATOM	2661	CA	GLU	422B	62.739	56.223	72.713	1.00	36.93	B
	ATOM	2662	CB	GLU	422B	62.279	56.574	74.131	1.00	38.17	B
	ATOM	2663	CG	GLU	422B	62.544	55.498	75.162	1.00	38.33	B
	ATOM	2664	CD	GLU	422B	64.015	55.305	75.451	1.00	38.95	B
25	ATOM	2665	OE1	GLU	422B	64.447	54.140	75.513	1.00	43.49	B
	ATOM	2666	OE2	GLU	422B	64.739	56.305	75.629	1.00	39.55	B
	ATOM	2667	C	GLU	422B	62.183	54.857	72.308	1.00	36.05	B
	ATOM	2668	O	GLU	422B	60.969	54.636	72.335	1.00	35.09	B
	ATOM	2669	N	CYS	423B	63.076	53.940	71.943	1.00	35.10	B
30	ATOM	2670	CA	CYS	423B	62.672	52.604	71.532	1.00	33.64	B
	ATOM	2671	CB	CYS	423B	62.080	51.841	72.723	1.00	36.64	B
	ATOM	2672	SG	CYS	423B	63.265	51.488	74.044	1.00	39.23	B
	ATOM	2673	C	CYS	423B	61.655	52.637	70.390	1.00	33.57	B
	ATOM	2674	O	CYS	423B	60.751	51.809	70.336	1.00	33.36	B
35	ATOM	2675	N	ALA	424B	61.810	53.603	69.489	1.00	32.90	B
	ATOM	2676	CA	ALA	424B	60.931	53.759	68.331	1.00	33.91	B
	ATOM	2677	CB	ALA	424B	61.040	52.520	67.431	1.00	31.78	B
	ATOM	2678	C	ALA	424B	59.459	54.035	68.673	1.00	33.09	B
	ATOM	2679	O	ALA	424B	58.577	53.854	67.835	1.00	31.34	B
40	ATOM	2680	N	ILE	425B	59.193	54.503	69.887	1.00	32.10	B
	ATOM	2681	CA	ILE	425B	57.816	54.756	70.278	1.00	31.92	B
	ATOM	2682	CB	ILE	425B	57.681	54.901	71.807	1.00	30.21	B
	ATOM	2683	CG2	ILE	425B	58.076	56.292	72.252	1.00	28.22	B
	ATOM	2684	CG1	ILE	425B	56.243	54.587	72.208	1.00	29.83	B
45	ATOM	2685	CD	ILE	425B	56.031	54.433	73.688	1.00	33.99	B
	ATOM	2686	C	ILE	425B	57.197	55.963	69.590	1.00	32.80	B
	ATOM	2687	O	ILE	425B	55.999	56.193	69.699	1.00	33.54	B
	ATOM	2688	N	GLU	426B	58.014	56.724	68.873	1.00	32.54	B
	ATOM	2689	CA	GLU	426B	57.534	57.897	68.148	1.00	33.10	B
50	ATOM	2690	CB	GLU	426B	58.353	59.129	68.549	1.00	32.43	B
	ATOM	2691	CG	GLU	426B	57.877	59.806	69.832	1.00	32.88	B
	ATOM	2692	CD	GLU	426B	58.965	60.611	70.537	1.00	33.47	B
	ATOM	2693	OE1	GLU	426B	59.924	61.066	69.871	1.00	31.63	B
	ATOM	2694	OE2	GLU	426B	58.848	60.793	71.766	1.00	32.49	B
55	ATOM	2695	C	GLU	426B	57.639	57.661	66.639	1.00	33.04	B
	ATOM	2696	O	GLU	426B	57.657	58.604	65.855	1.00	34.57	B
	ATOM	2697	N	SER	427B	57.672	56.392	66.244	1.00	33.79	B
	ATOM	2698	CA	SER	427B	57.812	56.006	64.841	1.00	32.57	B
	ATOM	2699	CB	SER	427B	58.823	54.859	64.727	1.00	33.62	B

	ATOM	2700	OG	SER	427B	58.281	53.657	65.260	1.00	29.81	B
	ATOM	2701	C	SER	427B	56.548	55.569	64.095	1.00	33.11	B
	ATOM	2702	O	SER	427B	56.481	55.689	62.869	1.00	31.34	B
	ATOM	2703	N	ILE	428B	55.547	55.062	64.811	1.00	32.74	B
5	ATOM	2704	CA	ILE	428B	54.369	54.570	64.122	1.00	30.96	B
	ATOM	2705	CB	ILE	428B	54.595	53.074	63.752	1.00	31.66	B
	ATOM	2706	CG2	ILE	428B	54.675	52.224	65.015	1.00	31.09	B
	ATOM	2707	CG1	ILE	428B	53.505	52.585	62.803	1.00	32.06	B
	ATOM	2708	CD	ILE	428B	53.848	51.283	62.131	1.00	31.49	B
10	ATOM	2709	C	ILE	428B	53.023	54.758	64.819	1.00	31.43	B
	ATOM	2710	O	ILE	428B	52.202	53.845	64.870	1.00	31.97	B
	ATOM	2711	N	ALA	429B	52.791	55.955	65.341	1.00	31.32	B
	ATOM	2712	CA	ALA	429B	51.522	56.257	65.992	1.00	30.95	B
	ATOM	2713	CB	ALA	429B	51.535	57.683	66.558	1.00	25.72	B
15	ATOM	2714	C	ALA	429B	50.420	56.110	64.938	1.00	31.99	B
	ATOM	2715	O	ALA	429B	50.570	56.561	63.803	1.00	30.61	B
	ATOM	2716	N	MET	430B	49.319	55.474	65.324	1.00	32.64	B
	ATOM	2717	CA	MET	430B	48.197	55.243	64.425	1.00	32.85	B
	ATOM	2718	CB	MET	430B	48.210	53.771	63.981	1.00	31.31	B
20	ATOM	2719	CG	MET	430B	47.071	53.317	63.084	1.00	30.71	B
	ATOM	2720	SD	MET	430B	45.572	52.886	63.990	1.00	32.75	B
	ATOM	2721	CE	MET	430B	44.356	52.893	62.670	1.00	31.88	B
	ATOM	2722	C	MET	430B	46.892	55.607	65.143	1.00	35.04	B
	ATOM	2723	O	MET	430B	46.708	55.260	66.312	1.00	35.67	B
25	ATOM	2724	N	ALA	431B	46.004	56.319	64.444	1.00	34.47	B
	ATOM	2725	CA	ALA	431B	44.725	56.752	65.011	1.00	34.38	B
	ATOM	2726	CB	ALA	431B	44.739	58.257	65.240	1.00	32.98	B
	ATOM	2727	C	ALA	431B	43.521	56.380	64.147	1.00	36.79	B
	ATOM	2728	O	ALA	431B	43.616	56.239	62.918	1.00	36.33	B
30	ATOM	2729	N	ALA	432B	42.380	56.232	64.804	1.00	36.95	B
	ATOM	2730	CA	ALA	432B	41.153	55.882	64.118	1.00	37.10	B
	ATOM	2731	CB	ALA	432B	40.932	54.380	64.182	1.00	37.73	B
	ATOM	2732	C	ALA	432B	40.007	56.616	64.792	1.00	37.08	B
	ATOM	2733	O	ALA	432B	40.063	56.899	65.988	1.00	37.32	B
35	ATOM	2734	N	ILE	433B	38.984	56.944	64.009	1.00	36.44	B
	ATOM	2735	CA	ILE	433B	37.812	57.637	64.519	1.00	35.47	B
	ATOM	2736	CB	ILE	433B	37.373	58.770	63.568	1.00	37.53	B
	ATOM	2737	CG2	ILE	433B	36.152	59.488	64.137	1.00	38.28	B
	ATOM	2738	CG1	ILE	433B	38.520	59.768	63.359	1.00	37.44	B
40	ATOM	2739	CD	ILE	433B	38.937	60.509	64.610	1.00	35.24	B
	ATOM	2740	C	ILE	433B	36.669	56.624	64.653	1.00	36.77	B
	ATOM	2741	O	ILE	433B	36.158	56.105	63.656	1.00	34.52	B
	ATOM	2742	N	PRO	434B	36.270	56.315	65.895	1.00	34.59	B
	ATOM	2743	CD	PRO	434B	36.849	56.774	67.170	1.00	33.72	B
45	ATOM	2744	CA	PRO	434B	35.186	55.361	66.134	1.00	35.09	B
	ATOM	2745	CB	PRO	434B	35.399	54.977	67.596	1.00	34.64	B
	ATOM	2746	CG	PRO	434B	35.832	56.288	68.190	1.00	31.80	B
	ATOM	2747	C	PRO	434B	33.801	55.981	65.907	1.00	33.42	B
	ATOM	2748	O	PRO	434B	33.616	57.178	66.092	1.00	34.39	B
50	ATOM	2749	N	ILE	435B	32.839	55.162	65.491	1.00	34.08	B
	ATOM	2750	CA	ILE	435B	31.468	55.628	65.294	1.00	33.73	B
	ATOM	2751	CB	ILE	435B	30.845	55.057	63.992	1.00	30.92	B
	ATOM	2752	CG2	ILE	435B	29.422	55.598	63.825	1.00	31.80	B
	ATOM	2753	CG1	ILE	435B	31.712	55.437	62.785	1.00	29.91	B
55	ATOM	2754	CD	ILE	435B	31.056	55.210	61.435	1.00	26.33	B
	ATOM	2755	C	ILE	435B	30.693	55.101	66.503	1.00	34.07	B
	ATOM	2756	O	ILE	435B	30.538	53.898	66.665	1.00	35.50	B
	ATOM	2757	N	PRO	436B	30.205	55.994	67.375	1.00	36.36	B
	ATOM	2758	CD	PRO	436B	30.337	57.461	67.399	1.00	36.61	B

	ATOM	2759	CA	PRO	436B	29.462	55.525	68.552	1.00	37.02	B
	ATOM	2760	CB	PRO	436B	29.164	56.817	69.317	1.00	34.52	B
	ATOM	2761	CG	PRO	436B	30.251	57.747	68.886	1.00	34.93	B
	ATOM	2762	C	PRO	436B	28.184	54.769	68.207	1.00	39.51	B
5	ATOM	2763	O	PRO	436B	27.698	54.820	67.080	1.00	39.49	B
	ATOM	2764	N	LYS	437B	27.658	54.048	69.187	1.00	43.47	B
	ATOM	2765	CA	LYS	437B	26.413	53.312	69.015	1.00	48.38	B
	ATOM	2766	CB	LYS	437B	26.177	52.433	70.248	1.00	49.11	B
	ATOM	2767	CG	LYS	437B	24.780	51.864	70.425	1.00	49.63	B
10	ATOM	2768	CD	LYS	437B	24.776	50.925	71.633	1.00	50.90	B
	ATOM	2769	CE	LYS	437B	23.393	50.374	71.958	1.00	52.33	B
	ATOM	2770	NZ	LYS	437B	22.519	51.377	72.653	1.00	55.07	B
	ATOM	2771	C	LYS	437B	25.350	54.407	68.908	1.00	50.45	B
	ATOM	2772	O	LYS	437B	25.391	55.379	69.669	1.00	50.76	B
15	ATOM	2773	N	LEU	438B	24.418	54.274	67.970	1.00	52.43	B
	ATOM	2774	CA	LEU	438B	23.388	55.301	67.806	1.00	55.22	B
	ATOM	2775	CB	LEU	438B	22.452	54.941	66.645	1.00	55.09	B
	ATOM	2776	CG	LEU	438B	21.376	55.991	66.321	1.00	54.70	B
	ATOM	2777	CD1	LEU	438B	22.043	57.284	65.871	1.00	54.64	B
20	ATOM	2778	CD2	LEU	438B	20.457	55.484	65.241	1.00	54.77	B
	ATOM	2779	C	LEU	438B	22.558	55.498	69.081	1.00	57.41	B
	ATOM	2780	OT1	LEU	438B	22.305	54.494	69.793	1.00	58.97	B
	ATOM	2781	OT	LEU	438B	22.153	56.661	69.346	1.00	59.05	B
	ATOM	2782	CL	CL-	900B	71.108	36.860	59.001	1.00	13.29	B
25	ATOM	2783	O	HOH	601B	50.222	49.975	62.912	1.00	11.76	B
	ATOM	2784	O	HOH	602B	61.992	48.421	76.056	1.00	27.60	B
	ATOM	2785	O	HOH	603B	37.319	39.458	74.128	1.00	30.94	B
	ATOM	2786	O	HOH	604B	31.757	50.034	43.700	1.00	26.34	B
	ATOM	2787	O	HOH	605B	55.116	56.905	60.945	1.00	30.34	B
30	ATOM	2788	O	HOH	606B	60.587	50.516	55.156	1.00	34.66	B
	ATOM	2789	O	HOH	607B	61.120	59.416	73.005	1.00	38.12	B
	ATOM	2790	O	HOH	608B	49.400	46.646	81.918	1.00	33.84	B
	ATOM	2791	O	HOH	609B	53.117	61.988	47.852	1.00	21.63	B
	ATOM	2792	O	HOH	610B	36.163	51.368	53.161	1.00	26.72	B
35	ATOM	2793	O	HOH	611B	35.279	58.030	42.138	1.00	29.04	B
	ATOM	2794	O	HOH	612B	55.524	64.530	59.022	1.00	28.30	B
	ATOM	2795	O	HOH	613B	52.724	57.342	62.367	1.00	33.20	B
	ATOM	2796	O	HOH	614B	53.339	56.360	52.169	1.00	26.25	B
	ATOM	2797	O	HOH	615B	40.874	52.862	76.718	1.00	31.09	B
40	ATOM	2798	O	HOH	616B	60.989	56.163	60.857	1.00	30.91	B
	ATOM	2799	O	HOH	617B	39.503	59.554	41.236	1.00	35.56	B
	ATOM	2800	O	HOH	618B	55.185	54.263	67.318	1.00	35.35	B
	ATOM	2801	O	HOH	619B	41.354	58.840	43.529	1.00	31.14	B
	ATOM	2802	O	HOH	620B	42.134	51.910	42.442	1.00	32.26	B
45	ATOM	2803	O	HOH	621B	58.255	51.572	63.364	1.00	34.13	B
	ATOM	2804	O	HOH	622B	59.454	48.338	56.487	1.00	31.59	B
	ATOM	2805	O	HOH	623B	40.730	46.800	50.899	1.00	33.70	B
	ATOM	2806	O	HOH	624B	43.650	37.799	63.651	1.00	30.60	B
	ATOM	2807	O	HOH	625B	54.572	54.731	54.011	1.00	30.56	B
50	ATOM	2808	O	HOH	626B	62.645	64.959	45.880	1.00	31.95	B
	ATOM	2809	O	HOH	627B	42.152	54.463	54.605	1.00	39.26	B
	ATOM	2810	O	HOH	628B	50.379	41.570	60.167	1.00	35.97	B
	ATOM	2811	O	HOH	629B	27.668	50.836	66.537	1.00	31.02	B
	ATOM	2812	O	HOH	630B	37.937	46.013	80.955	1.00	40.81	B
55	ATOM	2813	O	HOH	631B	53.739	39.994	54.561	1.00	31.16	B
	ATOM	2814	O	HOH	632B	48.041	63.247	60.719	1.00	38.21	B
	ATOM	2815	O	HOH	633B	47.721	56.791	57.208	1.00	29.72	B
	ATOM	2816	O	HOH	634B	38.624	45.579	75.589	1.00	35.03	B
	ATOM	2817	O	HOH	635B	39.122	49.528	54.377	1.00	34.39	B

	ATOM	2818	O	HOH	636B	29.870	51.837	65.058	1.00	38.58	B
	ATOM	2819	O	HOH	637B	49.622	55.427	86.610	1.00	30.77	B
	ATOM	2820	O	HOH	638B	48.439	65.230	64.327	1.00	31.07	B
	ATOM	2821	O	HOH	639B	39.029	47.904	79.293	1.00	43.23	B
5	ATOM	2822	O	HOH	640B	47.744	42.858	61.190	1.00	35.42	B
	ATOM	2823	O	HOH	641B	44.455	49.344	75.366	1.00	33.23	B
	ATOM	2824	O	HOH	642B	65.167	55.793	68.076	1.00	41.14	B
	ATOM	2825	O	HOH	643B	63.936	49.562	67.690	1.00	40.67	B
	ATOM	2826	O	HOH	644B	35.886	42.524	68.235	1.00	37.37	B
10	ATOM	2827	O	HOH	645B	58.471	48.998	38.968	1.00	34.54	B
	ATOM	2828	O	HOH	646B	33.941	56.121	56.053	1.00	36.72	B
	ATOM	2829	O	HOH	647B	34.490	49.138	54.086	1.00	34.47	B
	ATOM	2830	O	HOH	648B	32.981	38.126	53.583	1.00	41.70	B
	ATOM	2831	O	HOH	649B	36.970	60.125	42.124	1.00	33.66	B
15	ATOM	2832	O	HOH	650B	52.980	71.763	74.551	1.00	36.53	B
	ATOM	2833	O	HOH	651B	59.698	43.299	63.400	1.00	39.78	B
	ATOM	2834	O	HOH	652B	47.510	48.701	75.584	1.00	37.26	B
	ATOM	2835	O	HOH	653B	34.547	55.703	53.331	1.00	38.78	B
	ATOM	2836	O	HOH	654B	50.097	40.620	38.429	1.00	40.07	B
20	ATOM	2837	O	HOH	655B	50.743	39.324	80.737	1.00	37.41	B
	ATOM	2838	O	HOH	656B	58.539	39.894	59.854	1.00	40.55	B
	ATOM	2839	O	HOH	657B	42.288	62.582	40.838	1.00	33.28	B
	ATOM	2840	O	HOH	658B	39.652	45.089	82.858	1.00	39.78	B
	ATOM	2841	O	HOH	659B	50.619	51.572	65.837	1.00	46.78	B
25	ATOM	2842	O	HOH	660B	44.651	66.272	81.256	1.00	34.62	B
	ATOM	2843	O	HOH	661B	47.391	32.825	78.051	1.00	53.12	B
	ATOM	2844	O	HOH	662B	47.059	39.386	52.069	1.00	40.95	B
	ATOM	2845	O	HOH	663B	37.442	37.830	43.622	1.00	41.81	B
	ATOM	2846	O	HOH	664B	47.821	35.782	57.740	1.00	46.20	B
30	ATOM	2847	O	HOH	665B	62.626	57.865	86.143	1.00	33.92	B
	ATOM	2848	O	HOH	666B	30.781	43.406	76.768	1.00	41.07	B
	ATOM	2849	O	HOH	667B	40.194	57.943	46.214	1.00	37.16	B
	ATOM	2850	O	HOH	668B	55.583	44.862	66.224	1.00	38.03	B
	ATOM	2851	O	HOH	669B	57.808	41.839	61.774	1.00	38.34	B
35	ATOM	2852	O	HOH	670B	40.183	61.724	39.634	1.00	35.87	B
	ATOM	2853	O	HOH	671B	53.788	67.041	83.825	1.00	43.36	B
	ATOM	2854	O	HOH	672B	28.468	43.920	70.575	1.00	42.68	B
	ATOM	2855	O	HOH	673B	60.355	66.709	74.236	1.00	38.83	B
	ATOM	2856	O	HOH	674B	35.471	60.336	85.971	1.00	41.77	B
40	ATOM	2857	O	HOH	675B	52.684	33.951	61.229	1.00	43.70	B
	ATOM	2858	O	HOH	676B	44.839	47.382	78.557	1.00	33.95	B
	ATOM	2859	O	HOH	677B	45.179	36.366	56.260	1.00	40.46	B
	ATOM	2860	O	HOH	678B	62.867	52.170	45.147	1.00	39.04	B
	ATOM	2861	O	HOH	679B	42.480	52.922	82.664	1.00	40.27	B
45	ATOM	2862	O	HOH	680B	52.344	49.128	64.879	1.00	41.94	B
	ATOM	2863	O	HOH	681B	27.909	52.342	77.247	1.00	41.79	B
	ATOM	2864	O	HOH	682B	30.368	46.660	76.959	1.00	39.25	B
	ATOM	2865	O	HOH	683B	34.281	65.164	75.659	1.00	45.38	B
	ATOM	2866	O	HOH	684B	26.146	45.276	53.653	1.00	17.09	B
50	ATOM	2867	O	HOH	685B	43.016	48.494	76.973	1.00	6.14	B
	ATOM	2868	O	HOH	686B	35.394	56.271	85.276	1.00	5.92	B
	ATOM	2869	O	HOH	687B	34.886	52.138	79.365	1.00	5.60	B
	ATOM	2870	O	HOH	688B	60.000	39.668	44.896	1.00	5.15	B
	ATOM	2871	O	HOH	689B	40.437	27.545	72.534	1.00	5.05	B
55	ATOM	2872	O	HOH	690B	32.280	53.120	83.358	1.00	5.02	B
	ATOM	2873	O	HOH	691B	60.801	67.842	71.499	1.00	4.91	B
	ATOM	2874	O	HOH	692B	24.394	43.331	70.745	1.00	4.77	B
	ATOM	2875	O	HOH	693B	62.548	40.826	48.214	1.00	4.73	B
	ATOM	2876	O	HOH	694B	33.479	71.235	81.567	1.00	4.73	B

	ATOM	2877	O	HOH	695B	25.027	51.997	66.332	1.00	4.65	B
	ATOM	2878	O	HOH	696B	37.280	60.278	45.022	1.00	4.64	B
	ATOM	2879	O	HOH	697B	59.417	42.653	65.767	1.00	4.63	B
	ATOM	2880	O	HOH	698B	50.167	35.019	46.005	1.00	4.58	B
5	ATOM	2881	O	HOH	699B	41.078	68.811	63.124	1.00	4.55	B
	ATOM	2882	O	HOH	700B	47.533	66.494	82.730	1.00	4.54	B
	ATOM	2883	O	HOH	701B	47.099	63.843	63.795	1.00	4.52	B
	ATOM	2884	O	HOH	702B	39.167	75.214	81.003	1.00	4.49	B
	ATOM	2885	O	HOH	703B	28.221	44.524	50.305	1.00	4.48	B
10	ATOM	2886	O	HOH	704B	35.896	33.103	74.487	1.00	4.47	B
	ATOM	2887	O	HOH	705B	37.429	32.044	73.684	1.00	4.44	B
	ATOM	2888	O	HOH	706B	33.144	38.143	64.085	1.00	4.43	B
	ATOM	2889	O	HOH	707B	64.411	54.507	59.425	1.00	4.40	B
	ATOM	2890	O	HOH	708B	56.738	58.513	38.395	1.00	4.40	B
15	ATOM	2891	O	HOH	709B	52.340	42.595	66.511	1.00	4.38	B
	ATOM	2892	O	HOH	710B	46.327	59.694	56.010	1.00	4.35	B
	ATOM	2893	O	HOH	711B	54.600	70.732	70.734	1.00	4.35	B
	ATOM	2894	O	HOH	712B	24.786	40.916	46.373	1.00	4.35	B
	ATOM	2895	O	HOH	713B	55.759	51.893	34.667	1.00	4.29	B
20	ATOM	2896	O	HOH	714B	39.166	36.801	53.564	1.00	4.24	B
	ATOM	2897	O	HOH	715B	40.858	55.813	55.975	1.00	4.24	B
	ATOM	2898	O	HOH	716B	46.852	60.950	41.761	1.00	4.23	B
	ATOM	2899	O	HOH	717B	36.147	62.752	41.571	1.00	4.22	B
	ATOM	2900	O	HOH	718B	36.611	35.647	45.434	1.00	4.22	B
25	ATOM	2901	O	HOH	719B	44.062	57.203	55.924	1.00	4.22	B
	ATOM	2902	O	HOH	720B	61.914	42.785	61.884	1.00	4.21	B
	ATOM	2903	O	HOH	721B	28.165	51.733	72.946	1.00	4.19	B
	ATOM	2904	O	HOH	722B	41.322	54.153	35.952	1.00	4.18	B
	ATOM	2905	O	HOH	723B	46.724	79.604	70.114	1.00	4.18	B
30	ATOM	2906	O	HOH	724B	57.045	49.304	91.708	1.00	4.15	B
	ATOM	2907	O	HOH	725B	26.667	45.557	43.556	1.00	4.14	B
	ATOM	2908	O	HOH	726B	69.005	59.446	67.656	1.00	4.12	B
	ATOM	2909	O	HOH	727B	43.271	73.878	73.099	1.00	4.11	B
	ATOM	2910	O	HOH	728B	26.115	63.271	78.133	1.00	4.11	B
35	ATOM	2911	O	HOH	729B	42.903	59.621	54.741	1.00	4.10	B
	ATOM	2912	O	HOH	730B	49.429	42.771	86.288	1.00	4.10	B
	ATOM	2913	O	HOH	731B	43.517	35.047	39.341	1.00	4.10	B
	ATOM	2914	O	HOH	732B	48.539	67.322	62.441	1.00	4.10	B
	ATOM	2915	O	HOH	733B	38.153	59.641	84.304	1.00	4.10	B
40	ATOM	2916	O	HOH	734B	43.608	32.899	66.034	1.00	4.09	B
	ATOM	2917	O	HOH	735B	42.975	65.834	41.652	1.00	4.08	B
	ATOM	2918	O	HOH	736B	61.104	24.515	50.797	1.00	4.07	B
	ATOM	2919	O	HOH	737B	54.095	64.060	57.101	1.00	4.06	B
	ATOM	2920	O	HOH	738B	58.000	26.247	53.053	1.00	4.05	B
45	ATOM	2921	O	HOH	739B	35.899	59.209	48.786	1.00	4.04	B
	ATOM	2922	O	HOH	740B	36.090	53.361	84.041	1.00	4.03	B
	ATOM	2923	O	HOH	741B	64.711	53.194	82.536	1.00	4.03	B
	ATOM	2924	O	HOH	742B	49.804	35.984	54.709	1.00	4.02	B
	ATOM	2925	O	HOH	743B	50.259	34.181	41.747	1.00	4.01	B
50	ATOM	2926	O	HOH	744B	52.863	63.553	77.172	1.00	4.01	B
	ATOM	2927	O	HOH	745B	56.449	53.875	38.190	1.00	4.01	B
	ATOM	2928	O	HOH	746B	76.321	53.273	84.423	1.00	4.00	B
	ATOM	2929	O	HOH	747B	49.773	74.200	68.251	1.00	3.97	B
	ATOM	2930	O	HOH	748B	31.750	44.640	74.352	1.00	3.97	B
55	ATOM	1	C1	NAG	001B	77.923	66.716	49.244	1.00	23.42	M
	ATOM	2	C2	NAG	001B	78.655	65.753	48.304	1.00	25.59	M
	ATOM	3	C3	NAG	001B	77.894	64.449	48.041	1.00	26.59	M
	ATOM	4	C4	NAG	001B	77.159	63.907	49.287	1.00	27.11	M
	ATOM	5	C5	NAG	001B	76.437	65.038	50.029	1.00	26.08	M

	ATOM	6	C6	NAG	001B	75.821	64.590	51.337	1.00	25.05	M
	ATOM	7	C7	NAG	001B	80.062	66.583	46.539	1.00	28.62	M
	ATOM	8	C8	NAG	001B	80.207	67.251	45.165	1.00	28.98	M
	ATOM	9	N2	NAG	001B	78.840	66.401	47.013	1.00	27.59	M
5	ATOM	10	O3	NAG	001B	78.826	63.474	47.567	1.00	26.71	M
	ATOM	11	O4	NAG	001B	76.177	62.924	48.874	1.00	29.85	M
	ATOM	12	O5	NAG	001B	77.376	66.043	50.371	1.00	23.38	M
	ATOM	13	O6	NAG	001B	76.842	64.248	52.262	1.00	27.18	M
	ATOM	14	O7	NAG	001B	81.061	66.272	47.184	1.00	31.12	M
10	ATOM	1	C1	NAG	002B	40.692	86.828	26.608	1.00	23.42	Q
	ATOM	2	C2	NAG	002B	39.413	87.628	26.341	1.00	25.59	Q
	ATOM	3	C3	NAG	002B	38.918	87.533	24.893	1.00	26.59	Q
	ATOM	4	C4	NAG	002B	40.059	87.528	23.854	1.00	27.11	Q
	ATOM	5	C5	NAG	002B	41.196	86.600	24.299	1.00	26.08	Q
15	ATOM	6	C6	NAG	002B	42.405	86.667	23.389	1.00	25.05	Q
	ATOM	7	C7	NAG	002B	37.755	87.911	28.058	1.00	28.62	Q
	ATOM	8	C8	NAG	002B	36.621	87.329	28.915	1.00	28.98	Q
	ATOM	9	N2	NAG	002B	38.347	87.111	27.187	1.00	27.59	Q
	ATOM	10	O3	NAG	002B	38.044	88.639	24.647	1.00	26.71	Q
20	ATOM	11	O4	NAG	002B	39.548	87.055	22.583	1.00	29.85	Q
	ATOM	12	O5	NAG	002B	41.656	87.007	25.576	1.00	23.38	Q
	ATOM	13	O6	NAG	002B	43.021	87.942	23.493	1.00	27.18	Q
	ATOM	14	O7	NAG	002B	38.118	89.074	28.221	1.00	31.12	Q
	ATOM	1	CB	ASP	1C	75.746	76.990	44.992	1.00	40.28	C
25	ATOM	2	CG	ASP	1C	74.907	76.383	43.883	1.00	41.06	C
	ATOM	3	OD1	ASP	1C	74.978	75.133	43.743	1.00	39.54	C
	ATOM	4	OD2	ASP	1C	74.202	77.128	43.154	1.00	37.74	C
	ATOM	5	C	ASP	1C	76.547	78.970	46.172	1.00	42.30	C
	ATOM	6	O	ASP	1C	77.450	79.688	45.719	1.00	42.94	C
30	ATOM	7	N	ASP	1C	75.285	79.262	44.037	1.00	41.50	C
	ATOM	8	CA	ASP	1C	75.413	78.459	45.288	1.00	41.04	C
	ATOM	9	N	THR	2C	76.494	78.572	47.438	1.00	40.11	C
	ATOM	10	CA	THR	2C	77.539	78.908	48.386	1.00	38.84	C
	ATOM	11	CB	THR	2C	76.995	79.105	49.827	1.00	37.36	C
35	ATOM	12	OG1	THR	2C	76.771	77.827	50.435	1.00	35.14	C
	ATOM	13	CG2	THR	2C	75.687	79.894	49.810	1.00	32.07	C
	ATOM	14	C	THR	2C	78.321	77.599	48.321	1.00	40.07	C
	ATOM	15	O	THR	2C	77.815	76.604	47.793	1.00	40.24	C
	ATOM	16	N	PRO	3C	79.567	77.579	48.817	1.00	40.73	C
40	ATOM	17	CD	PRO	3C	80.477	78.701	49.128	1.00	40.17	C
	ATOM	18	CA	PRO	3C	80.290	76.304	48.742	1.00	39.49	C
	ATOM	19	CB	PRO	3C	81.752	76.721	48.912	1.00	39.93	C
	ATOM	20	CG	PRO	3C	81.668	77.990	49.723	1.00	41.03	C
	ATOM	21	C	PRO	3C	79.853	75.257	49.768	1.00	40.61	C
45	ATOM	22	O	PRO	3C	80.486	74.211	49.902	1.00	40.96	C
	ATOM	23	N	ALC	4C	78.757	75.519	50.478	1.00	41.42	C
	ATOM	24	CA	ALC	4C	78.282	74.567	51.483	1.00	40.22	C
	ATOM	25	CB	ALC	4C	77.350	75.258	52.458	1.00	40.48	C
	ATOM	26	C	ALC	4C	77.582	73.354	50.883	1.00	39.92	C
50	ATOM	27	O	ALC	4C	77.031	73.417	49.792	1.00	38.21	C
	ATOM	28	N	ASN	5C	77.629	72.238	51.599	1.00	39.47	C
	ATOM	29	CA	ASN	5C	76.958	71.031	51.152	1.00	39.98	C
	ATOM	30	CB	ASN	5C	77.910	70.100	50.393	1.00	39.84	C
	ATOM	31	CG	ASN	5C	77.206	68.852	49.895	1.00	41.98	C
55	ATOM	32	OD1	ASN	5C	75.993	68.868	49.714	1.00	41.90	C
	ATOM	33	ND2	ASN	5C	77.956	67.769	49.664	1.00	45.23	C
	ATOM	34	C	ASN	5C	76.400	70.326	52.379	1.00	40.12	C
	ATOM	35	O	ASN	5C	77.040	69.442	52.947	1.00	41.86	C
	ATOM	36	N	CYS	6C	75.202	70.724	52.790	1.00	39.04	C

	ATOM	37	CA	CYS	6C	74.580	70.133	53.965	1.00	38.07	C
	ATOM	38	C	CYS	6C	73.379	69.263	53.632	1.00	37.39	C
	ATOM	39	O	CYS	6C	72.797	69.382	52.558	1.00	35.73	C
	ATOM	40	CB	CYS	6C	74.195	71.231	54.950	1.00	37.67	C
5	ATOM	41	SG	CYS	6C	75.646	72.110	55.616	1.00	39.13	C
	ATOM	42	N	THR	7C	73.013	68.390	54.568	1.00	37.35	C
	ATOM	43	CA	THR	7C	71.916	67.460	54.351	1.00	37.54	C
	ATOM	44	CB	THR	7C	72.416	66.024	54.443	1.00	38.33	C
	ATOM	45	OG1	THR	7C	72.832	65.760	55.790	1.00	38.26	C
10	ATOM	46	CG2	THR	7C	73.578	65.805	53.492	1.00	32.54	C
	ATOM	47	C	THR	7C	70.742	67.572	55.311	1.00	38.67	C
	ATOM	48	O	THR	7C	70.851	68.154	56.393	1.00	38.94	C
	ATOM	49	N	TYR	8C	69.632	66.978	54.909	1.00	37.53	C
	ATOM	50	CA	TYR	8C	68.402	66.982	55.704	1.00	37.29	C
15	ATOM	51	CB	TYR	8C	67.384	66.032	55.055	1.00	36.29	C
	ATOM	52	CG	TYR	8C	66.006	66.053	55.717	1.00	36.06	C
	ATOM	53	CD1	TYR	8C	65.050	67.011	55.344	1.00	36.55	C
	ATOM	54	CE1	TYR	8C	63.793	67.021	55.960	1.00	35.31	C
	ATOM	55	CD2	TYR	8C	65.694	65.113	56.696	1.00	35.54	C
20	ATOM	56	CE2	TYR	8C	64.443	65.124	57.308	1.00	37.01	C
	ATOM	57	CZ	TYR	8C	63.497	66.073	56.943	1.00	36.40	C
	ATOM	58	OH	TYR	8C	62.283	66.068	57.556	1.00	35.00	C
	ATOM	59	C	TYR	8C	68.710	66.534	57.146	1.00	37.13	C
	ATOM	60	O	TYR	8C	68.393	67.245	58.111	1.00	36.11	C
25	ATOM	61	N	PRO	9C	69.369	65.368	57.352	1.00	37.20	C
	ATOM	62	CD	PRO	9C	69.789	64.367	56.355	1.00	37.24	C
	ATOM	63	CA	PRO	9C	69.692	64.906	58.712	1.00	38.92	C
	ATOM	64	CB	PRO	9C	70.599	63.708	58.459	1.00	36.25	C
	ATOM	65	CG	PRO	9C	70.026	63.136	57.215	1.00	37.48	C
30	ATOM	66	C	PRO	9C	70.361	65.969	59.601	1.00	39.85	C
	ATOM	67	O	PRO	9C	70.114	66.020	60.806	1.00	38.74	C
	ATOM	68	N	ASP	10C	71.201	66.811	59.003	1.00	39.71	C
	ATOM	69	CA	ASP	10C	71.882	67.869	59.752	1.00	41.70	C
	ATOM	70	CB	ASP	10C	72.896	68.608	58.865	1.00	43.47	C
35	ATOM	71	CG	ASP	10C	73.902	67.673	58.205	1.00	45.58	C
	ATOM	72	OD1	ASP	10C	74.474	66.811	58.912	1.00	43.76	C
	ATOM	73	OD2	ASP	10C	74.121	67.816	56.977	1.00	46.03	C
	ATOM	74	C	ASP	10C	70.887	68.898	60.296	1.00	41.37	C
	ATOM	75	O	ASP	10C	71.117	69.491	61.351	1.00	41.01	C
40	ATOM	76	N	LEU	11C	69.798	69.116	59.560	1.00	39.73	C
	ATOM	77	CA	LEU	11C	68.760	70.069	59.951	1.00	40.04	C
	ATOM	78	CB	LEU	11C	67.767	70.295	58.805	1.00	37.02	C
	ATOM	79	CG	LEU	11C	67.638	71.678	58.170	1.00	36.37	C
	ATOM	80	CD1	LEU	11C	66.346	71.719	57.390	1.00	33.14	C
45	ATOM	81	CD2	LEU	11C	67.642	72.768	59.229	1.00	35.06	C
	ATOM	82	C	LEU	11C	67.963	69.617	61.172	1.00	39.94	C
	ATOM	83	O	LEU	11C	67.724	70.409	62.085	1.00	40.09	C
	ATOM	84	N	LEU	12C	67.543	68.352	61.178	1.00	38.17	C
	ATOM	85	CA	LEU	12C	66.742	67.821	62.277	1.00	38.73	C
50	ATOM	86	CB	LEU	12C	66.489	66.321	62.086	1.00	38.67	C
	ATOM	87	CG	LEU	12C	65.785	65.828	60.824	1.00	38.12	C
	ATOM	88	CD1	LEU	12C	65.659	64.320	60.910	1.00	37.44	C
	ATOM	89	CD2	LEU	12C	64.412	66.472	60.693	1.00	37.38	C
	ATOM	90	C	LEU	12C	67.389	68.037	63.639	1.00	38.29	C
55	ATOM	91	O	LEU	12C	68.581	67.786	63.804	1.00	38.83	C
	ATOM	92	N	GLY	13C	66.595	68.492	64.608	1.00	36.39	C
	ATOM	93	CA	GLY	13C	67.106	68.714	65.951	1.00	35.38	C
	ATOM	94	C	GLY	13C	66.653	70.015	66.589	1.00	35.83	C
	ATOM	95	O	GLY	13C	65.651	70.608	66.190	1.00	37.17	C

	ATOM	96	N	THR	14C	67.394	70.470	67.590	1.00	34.33	C
	ATOM	97	CA	THR	14C	67.040	71.703	68.267	1.00	33.68	C
	ATOM	98	CB	THR	14C	67.070	71.509	69.785	1.00	34.49	C
	ATOM	99	OG1	THR	14C	66.129	70.490	70.143	1.00	34.36	C
5	ATOM	100	CG2	THR	14C	66.707	72.797	70.496	1.00	32.57	C
	ATOM	101	C	THR	14C	67.979	72.830	67.871	1.00	34.72	C
	ATOM	102	O	THR	14C	69.195	72.698	67.964	1.00	35.21	C
	ATOM	103	N	TRP	15C	67.406	73.938	67.419	1.00	35.31	C
	ATOM	104	CA	TRP	15C	68.194	75.082	66.996	1.00	35.06	C
10	ATOM	105	CB	TRP	15C	67.801	75.523	65.589	1.00	35.40	C
	ATOM	106	CG	TRP	15C	68.277	74.626	64.503	1.00	37.21	C
	ATOM	107	CD2	TRP	15C	69.466	74.793	63.727	1.00	36.45	C
	ATOM	108	CE2	TRP	15C	69.502	73.738	62.788	1.00	37.08	C
	ATOM	109	CE3	TRP	15C	70.510	75.732	63.734	1.00	36.02	C
15	ATOM	110	CD1	TRP	15C	67.659	73.507	64.030	1.00	36.82	C
	ATOM	111	NE1	TRP	15C	68.386	72.968	62.994	1.00	36.15	C
	ATOM	112	CZ2	TRP	15C	70.541	73.596	61.861	1.00	36.58	C
	ATOM	113	CZ3	TRP	15C	71.539	75.593	62.818	1.00	34.10	C
	ATOM	114	CH2	TRP	15C	71.547	74.531	61.892	1.00	35.53	C
20	ATOM	115	C	TRP	15C	68.022	76.266	67.919	1.00	35.31	C
	ATOM	116	O	TRP	15C	66.931	76.531	68.407	1.00	34.66	C
	ATOM	117	N	VAL	16C	69.114	76.987	68.134	1.00	36.25	C
	ATOM	118	CA	VAL	16C	69.105	78.165	68.974	1.00	35.81	C
	ATOM	119	CB	VAL	16C	70.113	78.052	70.113	1.00	35.33	C
25	ATOM	120	CG1	VAL	16C	70.125	79.349	70.922	1.00	32.74	C
	ATOM	121	CG2	VAL	16C	69.753	76.868	70.981	1.00	31.97	C
	ATOM	122	C	VAL	16C	69.463	79.357	68.121	1.00	36.67	C
	ATOM	123	O	VAL	16C	70.585	79.486	67.627	1.00	37.65	C
	ATOM	124	N	PHE	17C	68.514	80.242	68.009	1.00	37.76	C
30	ATOM	125	CA	PHE	17C	68.717	81.400	67.141	1.00	40.71	C
	ATOM	126	CB	PHE	17C	67.483	81.595	66.258	1.00	39.84	C
	ATOM	127	CG	PHE	17C	67.317	80.495	65.211	1.00	42.30	C
	ATOM	128	CD1	PHE	17C	66.049	79.981	64.928	1.00	42.09	C
	ATOM	129	CD2	PHE	17C	68.435	80.000	64.536	1.00	42.15	C
35	ATOM	130	CE1	PHE	17C	65.899	78.979	63.963	1.00	41.86	C
	ATOM	131	CE2	PHE	17C	68.283	78.998	63.570	1.00	41.37	C
	ATOM	132	CZ	PHE	17C	67.016	78.488	63.283	1.00	40.51	C
	ATOM	133	C	PHE	17C	68.933	82.683	67.967	1.00	43.12	C
	ATOM	134	O	PHE	17C	68.171	82.984	68.898	1.00	43.47	C
40	ATOM	135	N	GLN	18C	69.983	83.402	67.590	1.00	42.66	C
	ATOM	136	CA	GLN	18C	70.326	84.686	68.204	1.00	45.15	C
	ATOM	137	CB	GLN	18C	71.828	84.755	68.406	1.00	47.17	C
	ATOM	138	CG	GLN	18C	71.884	84.272	69.767	1.00	51.58	C
	ATOM	139	CD	GLN	18C	73.100	83.797	70.466	1.00	55.98	C
45	ATOM	140	OE1	GLN	18C	72.888	83.225	71.530	1.00	56.73	C
	ATOM	141	NE2	GLN	18C	74.320	83.982	70.006	1.00	56.66	C
	ATOM	142	C	GLN	18C	69.772	85.734	67.319	1.00	45.57	C
	ATOM	143	O	GLN	18C	70.076	85.770	66.143	1.00	45.74	C
	ATOM	144	N	VAL	19C	68.938	86.589	67.888	1.00	44.67	C
50	ATOM	145	CA	VAL	19C	68.276	87.624	67.081	1.00	44.05	C
	ATOM	146	CB	VAL	19C	66.772	87.488	67.242	1.00	43.34	C
	ATOM	147	CG1	VAL	19C	66.008	88.260	66.165	1.00	42.24	C
	ATOM	148	CG2	VAL	19C	66.321	86.022	67.154	1.00	40.01	C
	ATOM	149	C	VAL	19C	68.701	89.045	67.470	1.00	46.41	C
55	ATOM	150	O	VAL	19C	68.648	89.449	68.632	1.00	47.83	C
	ATOM	151	N	GLY	20C	69.033	89.802	66.410	1.00	46.10	C
	ATOM	152	CA	GLY	20C	69.463	91.196	66.575	1.00	47.27	C
	ATOM	153	C	GLY	20C	68.246	92.119	66.667	1.00	48.99	C
	ATOM	154	O	GLY	20C	67.096	91.651	66.656	1.00	49.37	C

	ATOM	155	N	PRO	21C	68.457	93.443	66.807	1.00	49.15	C
	ATOM	156	CD	PRO	21C	69.800	94.022	66.894	1.00	49.41	C
	ATOM	157	CA	PRO	21C	67.358	94.397	66.871	1.00	49.49	C
	ATOM	158	CB	PRO	21C	68.058	95.726	67.138	1.00	50.24	C
5	ATOM	159	CG	PRO	21C	69.554	95.461	67.201	1.00	50.42	C
	ATOM	160	C	PRO	21C	66.522	94.390	65.579	1.00	49.09	C
	ATOM	161	O	PRO	21C	66.936	93.808	64.554	1.00	49.95	C
	ATOM	162	N	ARG	22C	65.408	95.016	65.697	1.00	47.61	C
	ATOM	163	CA	ARG	22C	64.394	95.189	64.668	1.00	47.59	C
10	ATOM	164	CB	ARG	22C	63.242	95.744	65.345	1.00	47.80	C
	ATOM	165	CG	ARG	22C	62.030	95.747	64.521	1.00	51.80	C
	ATOM	166	CD	ARG	22C	61.615	97.134	64.105	1.00	54.28	C
	ATOM	167	NE	ARG	22C	60.723	97.095	62.965	1.00	56.17	C
	ATOM	168	CZ	ARG	22C	60.463	98.122	62.178	1.00	55.95	C
15	ATOM	169	NH1	ARG	22C	61.052	99.312	62.384	1.00	55.63	C
	ATOM	170	NH2	ARG	22C	59.601	98.050	61.165	1.00	57.96	C
	ATOM	171	C	ARG	22C	64.748	96.225	63.645	1.00	47.10	C
	ATOM	172	O	ARG	22C	65.339	97.226	63.990	1.00	48.31	C
	ATOM	173	N	HIS	23C	64.362	95.996	62.401	1.00	45.90	C
20	ATOM	174	CA	HIS	23C	64.612	96.982	61.326	1.00	45.89	C
	ATOM	175	CB	HIS	23C	65.948	96.735	60.641	1.00	46.36	C
	ATOM	176	CG	HIS	23C	67.158	96.995	61.530	1.00	46.84	C
	ATOM	177	CD2	HIS	23C	68.120	96.163	61.995	1.00	45.78	C
	ATOM	178	ND1	HIS	23C	67.460	98.262	62.026	1.00	47.59	C
25	ATOM	179	CE1	HIS	23C	68.562	98.166	62.749	1.00	47.94	C
	ATOM	180	NE2	HIS	23C	68.969	96.920	62.741	1.00	46.05	C
	ATOM	181	C	HIS	23C	63.515	96.889	60.274	1.00	46.01	C
	ATOM	182	O	HIS	23C	62.982	95.803	60.015	1.00	44.99	C
	ATOM	183	N	PRO	24C	63.156	98.011	59.626	1.00	46.15	C
30	ATOM	184	CD	PRO	24C	63.578	99.402	59.859	1.00	44.85	C
	ATOM	185	CA	PRO	24C	62.111	97.944	58.595	1.00	45.28	C
	ATOM	186	CB	PRO	24C	61.913	99.408	58.194	1.00	45.43	C
	ATOM	187	CG	PRO	24C	62.352	100.172	59.408	1.00	46.89	C
	ATOM	188	C	PRO	24C	62.563	97.097	57.413	1.00	44.14	C
35	ATOM	189	O	PRO	24C	63.695	96.624	57.369	1.00	43.79	C
	ATOM	190	N	ARG	25C	61.666	96.915	56.454	1.00	45.31	C
	ATOM	191	CA	ARG	25C	61.965	96.143	55.258	1.00	46.33	C
	ATOM	192	CB	ARG	25C	60.681	95.909	54.465	1.00	42.76	C
	ATOM	193	CG	ARG	25C	60.819	94.949	53.301	1.00	42.59	C
40	ATOM	194	CD	ARG	25C	59.439	94.575	52.774	1.00	41.63	C
	ATOM	195	NE	ARG	25C	58.756	95.707	52.156	1.00	39.85	C
	ATOM	196	CZ	ARG	25C	58.838	96.017	50.865	1.00	39.83	C
	ATOM	197	NH1	ARG	25C	59.576	95.280	50.048	1.00	38.73	C
	ATOM	198	NH2	ARG	25C	58.173	97.058	50.385	1.00	38.30	C
45	ATOM	199	C	ARG	25C	62.989	96.886	54.391	1.00	48.99	C
	ATOM	200	O	ARG	25C	63.948	96.291	53.901	1.00	49.50	C
	ATOM	201	N	SER	26C	62.794	98.190	54.229	1.00	51.32	C
	ATOM	202	CA	SER	26C	63.685	99.015	53.414	1.00	55.29	C
	ATOM	203	CB	SER	26C	63.032	100.380	53.146	1.00	55.94	C
50	ATOM	204	OG	SER	26C	61.695	100.220	52.687	1.00	60.72	C
	ATOM	205	C	SER	26C	65.062	99.251	54.034	1.00	55.87	C
	ATOM	206	O	SER	26C	66.009	99.590	53.330	1.00	55.71	C
	ATOM	207	N	HIS	27C	65.181	99.062	55.345	1.00	58.03	C
	ATOM	208	CA	HIS	27C	66.454	99.313	56.026	1.00	59.69	C
55	ATOM	209	CB	HIS	27C	66.233	100.344	57.142	1.00	63.53	C
	ATOM	210	CG	HIS	27C	66.236	101.765	56.668	1.00	68.08	C
	ATOM	211	CD2	HIS	27C	65.233	102.673	56.559	1.00	69.51	C
	ATOM	212	ND1	HIS	27C	67.388	102.414	56.271	1.00	70.07	C
	ATOM	213	CE1	HIS	27C	67.098	103.663	55.943	1.00	71.29	C

	ATOM	214	NE2	HIS	27C	65.797	103.846	56.109	1.00	71.73	C
	ATOM	215	C	HIS	27C	67.201	98.114	56.616	1.00	57.95	C
	ATOM	216	O	HIS	27C	68.108	98.303	57.438	1.00	59.66	C
	ATOM	217	N	ILE	28C	66.856	96.898	56.203	1.00	53.95	C
5	ATOM	218	CA	ILE	28C	67.506	95.713	56.750	1.00	49.75	C
	ATOM	219	CB	ILE	28C	66.468	94.551	56.909	1.00	47.70	C
	ATOM	220	CG2	ILE	28C	66.104	93.991	55.554	1.00	46.96	C
	ATOM	221	CG1	ILE	28C	67.026	93.440	57.801	1.00	46.12	C
	ATOM	222	CD	ILE	28C	67.306	93.879	59.236	1.00	45.53	C
10	ATOM	223	C	ILE	28C	68.695	95.250	55.905	1.00	49.28	C
	ATOM	224	O	ILE	28C	68.624	95.198	54.675	1.00	48.52	C
	ATOM	225	N	ASN	29C	69.798	94.934	56.578	1.00	48.31	C
	ATOM	226	CA	ASN	29C	71.008	94.453	55.917	1.00	48.97	C
	ATOM	227	CB	ASN	29C	71.997	95.599	55.650	1.00	50.69	C
15	ATOM	228	CG	ASN	29C	73.217	95.142	54.848	1.00	51.19	C
	ATOM	229	OD1	ASN	29C	73.892	94.178	55.223	1.00	52.60	C
	ATOM	230	ND2	ASN	29C	73.503	95.830	53.747	1.00	50.94	C
	ATOM	231	C	ASN	29C	71.637	93.454	56.872	1.00	47.65	C
	ATOM	232	O	ASN	29C	72.091	93.827	57.955	1.00	47.08	C
20	ATOM	233	N	CYS	30C	71.670	92.189	56.469	1.00	47.41	C
	ATOM	234	CA	CYS	30C	72.203	91.144	57.334	1.00	47.83	C
	ATOM	235	C	CYS	30C	73.565	90.570	56.970	1.00	48.51	C
	ATOM	236	O	CYS	30C	73.830	89.386	57.198	1.00	46.69	C
	ATOM	237	CB	CYS	30C	71.184	90.010	57.456	1.00	44.81	C
25	ATOM	238	SG	CYS	30C	69.623	90.534	58.235	1.00	43.71	C
	ATOM	239	N	SER	31C	74.431	91.403	56.407	1.00	51.93	C
	ATOM	240	CA	SER	31C	75.776	90.943	56.064	1.00	54.65	C
	ATOM	241	CB	SER	31C	76.541	92.034	55.323	1.00	54.29	C
	ATOM	242	OG	SER	31C	76.597	93.204	56.120	1.00	56.06	C
30	ATOM	243	C	SER	31C	76.474	90.642	57.390	1.00	55.61	C
	ATOM	244	O	SER	31C	77.289	89.719	57.488	1.00	55.99	C
	ATOM	245	N	VAL	32C	76.126	91.415	58.420	1.00	55.53	C
	ATOM	246	CA	VAL	32C	76.727	91.228	59.734	1.00	55.45	C
	ATOM	247	CB	VAL	32C	77.757	92.328	60.025	1.00	56.70	C
35	ATOM	248	CG1	VAL	32C	78.618	91.923	61.228	1.00	57.70	C
	ATOM	249	CG2	VAL	32C	78.614	92.575	58.786	1.00	58.90	C
	ATOM	250	C	VAL	32C	75.726	91.223	60.887	1.00	54.83	C
	ATOM	251	O	VAL	32C	74.780	92.024	60.924	1.00	54.07	C
	ATOM	252	N	MET	33C	75.953	90.313	61.830	1.00	53.57	C
40	ATOM	253	CA	MET	33C	75.110	90.196	63.008	1.00	52.48	C
	ATOM	254	CB	MET	33C	75.433	88.914	63.773	1.00	51.56	C
	ATOM	255	CG	MET	33C	74.371	87.857	63.681	1.00	51.27	C
	ATOM	256	SD	MET	33C	72.722	88.492	63.993	1.00	50.70	C
	ATOM	257	CE	MET	33C	72.590	88.287	65.782	1.00	50.26	C
45	ATOM	258	C	MET	33C	75.370	91.377	63.928	1.00	53.39	C
	ATOM	259	O	MET	33C	76.501	91.863	64.017	1.00	53.27	C
	ATOM	260	N	GLU	34C	74.318	91.833	64.600	1.00	53.53	C
	ATOM	261	CA	GLU	34C	74.416	92.927	65.559	1.00	53.79	C
	ATOM	262	CB	GLU	34C	73.235	93.887	65.398	1.00	56.21	C
50	ATOM	263	CG	GLU	34C	73.196	94.650	64.095	1.00	57.38	C
	ATOM	264	CD	GLU	34C	71.938	95.495	63.967	1.00	60.13	C
	ATOM	265	OE1	GLU	34C	70.920	94.972	63.441	1.00	60.67	C
	ATOM	266	OE2	GLU	34C	71.967	96.677	64.406	1.00	58.46	C
	ATOM	267	C	GLU	34C	74.357	92.280	66.948	1.00	53.30	C
55	ATOM	268	O	GLU	34C	74.177	91.063	67.065	1.00	50.62	C
	ATOM	269	N	PRO	35C	74.524	93.077	68.019	1.00	54.04	C
	ATOM	270	CD	PRO	35C	74.961	94.488	68.084	1.00	54.01	C
	ATOM	271	CA	PRO	35C	74.467	92.481	69.363	1.00	53.72	C
	ATOM	272	CB	PRO	35C	74.612	93.691	70.290	1.00	53.37	C

	ATOM	273	CG	PRO	35C	75.543	94.587	69.506	1.00	53.39	C
	ATOM	274	C	PRO	35C	73.142	91.747	69.563	1.00	52.92	C
	ATOM	275	O	PRO	35C	72.076	92.255	69.214	1.00	52.49	C
	ATOM	276	N	THR	36C	73.226	90.544	70.114	1.00	52.82	C
5	ATOM	277	CA	THR	36C	72.054	89.717	70.352	1.00	52.88	C
	ATOM	278	CB	THR	36C	72.467	88.353	70.900	1.00	52.84	C
	ATOM	279	OG1	THR	36C	73.332	87.712	69.952	1.00	53.43	C
	ATOM	280	CG2	THR	36C	71.238	87.479	71.174	1.00	51.27	C
	ATOM	281	C	THR	36C	71.101	90.363	71.343	1.00	54.29	C
10	ATOM	282	O	THR	36C	71.528	90.882	72.381	1.00	52.15	C
	ATOM	283	N	GLU	37C	69.804	90.321	71.002	1.00	55.22	C
	ATOM	284	CA	GLU	37C	68.770	90.913	71.861	1.00	56.98	C
	ATOM	285	CB	GLU	37C	67.999	91.976	71.111	1.00	58.29	C
	ATOM	286	CG	GLU	37C	68.778	93.266	70.932	1.00	61.75	C
15	ATOM	287	CD	GLU	37C	67.866	94.448	70.706	1.00	63.86	C
	ATOM	288	OE1	GLU	37C	68.373	95.605	70.529	1.00	64.28	C
	ATOM	289	OE2	GLU	37C	66.599	94.260	70.697	1.00	62.16	C
	ATOM	290	C	GLU	37C	67.785	89.854	72.344	1.00	57.10	C
	ATOM	291	O	GLU	37C	67.269	89.929	73.462	1.00	57.55	C
20	ATOM	292	N	GLU	38C	67.509	88.883	71.502	1.00	57.04	C
	ATOM	293	CA	GLU	38C	66.636	87.803	71.910	1.00	55.60	C
	ATOM	294	CB	GLU	38C	65.251	87.771	71.349	1.00	58.17	C
	ATOM	295	CG	GLU	38C	64.201	88.895	71.215	1.00	61.04	C
	ATOM	296	CD	GLU	38C	63.550	89.442	72.477	1.00	63.70	C
25	ATOM	297	OE1	GLU	38C	63.290	90.688	72.505	1.00	63.69	C
	ATOM	298	OE2	GLU	38C	63.270	88.681	73.474	1.00	63.58	C
	ATOM	299	C	GLU	38C	67.279	86.450	71.486	1.00	54.27	C
	ATOM	300	O	GLU	38C	68.134	86.387	70.588	1.00	54.33	C
	ATOM	301	N	LYS	39C	66.852	85.400	72.147	1.00	51.32	C
30	ATOM	302	CA	LYS	39C	67.357	84.055	71.905	1.00	49.38	C
	ATOM	303	CB	LYS	39C	68.234	83.647	73.103	1.00	50.48	C
	ATOM	304	CG	LYS	39C	69.243	82.542	72.807	1.00	54.07	C
	ATOM	305	CD	LYS	39C	70.477	82.598	73.730	1.00	55.90	C
	ATOM	306	CE	LYS	39C	71.416	81.400	73.509	1.00	59.31	C
35	ATOM	307	NZ	LYS	39C	72.719	81.504	74.213	1.00	59.16	C
	ATOM	308	C	LYS	39C	66.158	83.126	71.761	1.00	47.69	C
	ATOM	309	O	LYS	39C	65.421	82.896	72.729	1.00	48.28	C
	ATOM	310	N	VAL	40C	65.901	82.672	70.531	1.00	44.36	C
	ATOM	311	CA	VAL	40C	64.750	81.820	70.235	1.00	40.79	C
40	ATOM	312	CB	VAL	40C	63.971	82.384	69.023	1.00	40.02	C
	ATOM	313	CG1	VAL	40C	62.821	81.463	68.645	1.00	36.38	C
	ATOM	314	CG2	VAL	40C	63.450	83.778	69.359	1.00	38.63	C
	ATOM	315	C	VAL	40C	65.121	80.361	69.959	1.00	41.51	C
	ATOM	316	O	VAL	40C	66.099	80.084	69.254	1.00	43.93	C
45	ATOM	317	N	VAL	41C	64.341	79.436	70.522	1.00	39.22	C
	ATOM	318	CA	VAL	41C	64.573	78.005	70.332	1.00	36.69	C
	ATOM	319	CB	VAL	41C	64.617	77.255	71.666	1.00	36.32	C
	ATOM	320	CG1	VAL	41C	64.938	75.789	71.421	1.00	34.53	C
	ATOM	321	CG2	VAL	41C	65.649	77.880	72.579	1.00	37.69	C
50	ATOM	322	C	VAL	41C	63.481	77.370	69.475	1.00	37.00	C
	ATOM	323	O	VAL	41C	62.291	77.529	69.745	1.00	36.96	C
	ATOM	324	N	ILE	42C	63.894	76.645	68.444	1.00	35.86	C
	ATOM	325	CA	ILE	42C	62.952	75.989	67.552	1.00	34.78	C
	ATOM	326	CB	ILE	42C	62.854	76.742	66.202	1.00	34.00	C
55	ATOM	327	CG2	ILE	42C	61.950	75.982	65.235	1.00	30.30	C
	ATOM	328	CG1	ILE	42C	62.331	78.163	66.445	1.00	33.29	C
	ATOM	329	CD	ILE	42C	62.144	78.983	65.190	1.00	34.69	C
	ATOM	330	C	ILE	42C	63.387	74.554	67.296	1.00	35.61	C
	ATOM	331	O	ILE	42C	64.574	74.284	67.113	1.00	36.59	C

	ATOM	332	N	HIS	43C	62.422	73.639	67.293	1.00	34.04	C
	ATOM	333	CA	HIS	43C	62.692	72.230	67.055	1.00	34.68	C
	ATOM	334	CB	HIS	43C	61.936	71.374	68.074	1.00	35.70	C
	ATOM	335	CG	HIS	43C	62.286	71.671	69.499	1.00	38.93	C
5	ATOM	336	CD2	HIS	43C	61.887	72.666	70.325	1.00	38.22	C
	ATOM	337	ND1	HIS	43C	63.153	70.888	70.232	1.00	39.36	C
	ATOM	338	CE1	HIS	43C	63.273	71.387	71.449	1.00	37.96	C
	ATOM	339	NE2	HIS	43C	62.515	72.467	71.531	1.00	40.72	C
	ATOM	340	C	HIS	43C	62.226	71.857	65.648	1.00	34.97	C
10	ATOM	341	O	HIS	43C	61.177	72.315	65.204	1.00	36.02	C
	ATOM	342	N	LEU	44C	62.998	71.025	64.953	1.00	33.80	C
	ATOM	343	CA	LEU	44C	62.628	70.583	63.605	1.00	35.36	C
	ATOM	344	CB	LEU	44C	63.634	71.107	62.579	1.00	32.69	C
	ATOM	345	CG	LEU	44C	63.843	72.621	62.552	1.00	33.36	C
15	ATOM	346	CD1	LEU	44C	64.858	72.974	61.468	1.00	30.07	C
	ATOM	347	CD2	LEU	44C	62.513	73.320	62.310	1.00	29.97	C
	ATOM	348	C	LEU	44C	62.598	69.053	63.570	1.00	35.65	C
	ATOM	349	O	LEU	44C	63.607	68.408	63.847	1.00	37.08	C
	ATOM	350	N	LYS	45C	61.017	68.585	63.042	1.00	37.12	C
20	ATOM	351	CA	LYS	45C	61.257	67.148	63.229	1.00	38.23	C
	ATOM	352	CB	LYS	45C	60.390	66.618	64.377	1.00	40.53	C
	ATOM	353	CG	LYS	45C	61.095	66.680	65.741	1.00	42.38	C
	ATOM	354	CD	LYS	45C	62.596	66.383	65.656	1.00	49.18	C
	ATOM	355	CE	LYS	45C	63.281	66.343	67.027	1.00	50.80	C
25	ATOM	356	NZ	LYS	45C	62.868	65.192	67.844	1.00	53.90	C
	ATOM	357	C	LYS	45C	60.921	66.378	61.932	1.00	39.78	C
	ATOM	358	O	LYS	45C	60.273	66.921	61.025	1.00	40.57	C
	ATOM	359	N	LYS	46C	61.398	65.143	61.941	1.00	41.85	C
	ATOM	360	CA	LYS	46C	61.269	64.138	60.847	1.00	41.90	C
30	ATOM	361	CB	LYS	46C	60.209	63.100	61.191	1.00	44.97	C
	ATOM	362	CG	LYS	46C	60.834	61.781	61.671	1.00	44.25	C
	ATOM	363	CD	LYS	46C	60.894	60.706	60.582	1.00	44.04	C
	ATOM	364	CE	LYS	46C	60.094	59.456	60.945	1.00	42.84	C
	ATOM	365	NZ	LYS	46C	58.683	59.746	61.234	1.00	44.73	C
35	ATOM	366	C	LYS	46C	60.916	64.770	59.472	1.00	43.40	C
	ATOM	367	O	LYS	46C	61.786	65.236	58.734	1.00	39.59	C
	ATOM	368	N	LEU	47C	59.644	64.785	59.108	1.00	44.56	C
	ATOM	369	CA	LEU	47C	59.237	65.336	57.787	1.00	40.21	C
	ATOM	370	CB	LEU	47C	57.919	64.713	57.331	1.00	38.90	C
40	ATOM	371	CG	LEU	47C	58.122	63.324	56.718	1.00	38.34	C
	ATOM	372	CD1	LEU	47C	57.196	63.043	55.534	1.00	39.88	C
	ATOM	373	CD2	LEU	47C	59.544	63.111	56.190	1.00	37.27	C
	ATOM	374	C	LEU	47C	59.074	66.854	57.843	1.00	39.50	C
	ATOM	375	O	LEU	47C	59.655	67.583	57.017	1.00	40.75	C
45	ATOM	376	N	ASP	48C	58.452	67.673	58.023	1.00	35.83	C
	ATOM	377	CA	ASP	48C	58.391	69.129	57.918	1.00	33.58	C
	ATOM	378	CB	ASP	48C	57.691	69.511	56.604	1.00	33.68	C
	ATOM	379	CG	ASP	48C	56.188	69.325	56.654	1.00	35.99	C
	ATOM	380	OD1	ASP	48C	55.706	68.429	57.371	1.00	38.09	C
50	ATOM	381	OD2	ASP	48C	55.477	70.073	55.956	1.00	39.54	C
	ATOM	382	C	ASP	48C	57.782	69.901	59.088	1.00	33.19	C
	ATOM	383	O	ASP	48C	57.266	70.998	58.909	1.00	32.13	C
	ATOM	384	N	THR	49C	57.871	69.346	60.291	1.00	34.69	C
	ATOM	385	CA	THR	49C	57.328	70.010	61.465	1.00	32.42	C
55	ATOM	386	CB	THR	49C	56.753	68.991	62.466	1.00	33.29	C
	ATOM	387	OG1	THR	49C	55.648	68.304	61.875	1.00	32.59	C
	ATOM	388	CG2	THR	49C	56.290	69.694	63.730	1.00	32.86	C
	ATOM	389	C	THR	49C	58.330	70.884	62.224	1.00	33.06	C
	ATOM	390	O	THR	49C	59.447	70.475	62.517	1.00	31.74	C

	ATOM	391	N	ALC	50C	57.905	72.098	62.545	1.00	34.39	C
	ATOM	392	CA	ALC	50C	58.711	73.034	63.312	1.00	33.65	C
	ATOM	393	CB	ALC	50C	59.037	74.264	62.474	1.00	34.11	C
	ATOM	394	C	ALC	50C	57.841	73.424	64.502	1.00	34.28	C
5	ATOM	395	O	ALC	50C	56.642	73.620	64.350	1.00	34.75	C
	ATOM	396	N	TYR	51C	58.422	73.521	65.687	1.00	34.63	C
	ATOM	397	CA	TYR	51C	57.637	73.910	66.851	1.00	35.49	C
	ATOM	398	CB	TYR	51C	56.875	72.715	67.436	1.00	32.75	C
	ATOM	399	CG	TYR	51C	57.720	71.524	67.850	1.00	34.70	C
10	ATOM	400	CD1	TYR	51C	58.078	70.543	66.924	1.00	34.16	C
	ATOM	401	CE1	TYR	51C	58.795	69.417	67.309	1.00	35.08	C
	ATOM	402	CD2	TYR	51C	58.116	71.351	69.182	1.00	34.32	C
	ATOM	403	CE2	TYR	51C	58.839	70.229	69.581	1.00	33.74	C
	ATOM	404	CZ	TYR	51C	59.172	69.263	68.638	1.00	36.72	C
15	ATOM	405	OH	TYR	51C	59.872	68.137	69.015	1.00	36.53	C
	ATOM	406	C	TYR	51C	58.479	74.548	67.932	1.00	35.70	C
	ATOM	407	O	TYR	51C	59.621	74.142	68.163	1.00	36.85	C
	ATOM	408	N	ASP	52C	57.916	75.563	68.580	1.00	35.40	C
	ATOM	409	CA	ASP	52C	58.611	76.250	69.659	1.00	35.51	C
20	ATOM	410	CB	ASP	52C	58.057	77.665	69.864	1.00	34.31	C
	ATOM	411	CG	ASP	52C	56.573	77.680	70.204	1.00	34.28	C
	ATOM	412	OD1	ASP	52C	56.055	76.675	70.735	1.00	36.05	C
	ATOM	413	OD2	ASP	52C	55.926	78.715	69.951	1.00	33.44	C
	ATOM	414	C	ASP	52C	58.416	75.423	70.917	1.00	35.88	C
25	ATOM	415	O	ASP	52C	58.050	74.255	70.838	1.00	37.26	C
	ATOM	416	N	GLU	53C	58.642	76.020	72.079	1.00	39.55	C
	ATOM	417	CA	GLU	53C	58.489	75.278	73.324	1.00	41.98	C
	ATOM	418	CB	GLU	53C	59.629	75.606	74.276	1.00	44.69	C
	ATOM	419	CG	GLU	53C	60.638	74.479	74.356	1.00	50.39	C
30	ATOM	420	CD	GLU	53C	62.027	74.966	74.085	1.00	54.04	C
	ATOM	421	OE1	GLU	53C	62.947	74.117	73.996	1.00	55.71	C
	ATOM	422	OE2	GLU	53C	62.189	76.207	73.959	1.00	55.68	C
	ATOM	423	C	GLU	53C	57.175	75.452	74.053	1.00	40.50	C
	ATOM	424	O	GLU	53C	56.928	74.773	75.043	1.00	40.73	C
35	ATOM	425	N	VAL	54C	56.327	76.345	73.564	1.00	39.75	C
	ATOM	426	CA	VAL	54C	55.050	76.578	74.215	1.00	39.48	C
	ATOM	427	CB	VAL	54C	54.846	78.078	74.478	1.00	40.36	C
	ATOM	428	CG1	VAL	54C	55.876	78.556	75.513	1.00	38.06	C
	ATOM	429	CG2	VAL	54C	54.996	78.867	73.185	1.00	38.84	C
40	ATOM	430	C	VAL	54C	53.854	76.020	73.459	1.00	40.26	C
	ATOM	431	O	VAL	54C	52.807	76.655	73.391	1.00	41.88	C
	ATOM	432	N	GLY	55C	54.022	74.831	72.886	1.00	41.13	C
	ATOM	433	CA	GLY	55C	52.942	74.186	72.160	1.00	40.80	C
	ATOM	434	C	GLY	55C	52.550	74.676	70.772	1.00	40.97	C
45	ATOM	435	O	GLY	55C	51.513	74.252	70.260	1.00	41.71	C
	ATOM	436	N	ASN	56C	53.347	75.542	70.151	1.00	39.30	C
	ATOM	437	CA	ASN	56C	53.009	76.033	68.814	1.00	38.72	C
	ATOM	438	CB	ASN	56C	53.350	77.517	68.701	1.00	38.26	C
	ATOM	439	CG	ASN	56C	52.574	78.366	69.688	1.00	37.24	C
50	ATOM	440	OD1	ASN	56C	51.347	78.388	69.672	1.00	37.37	C
	ATOM	441	ND2	ASN	56C	53.289	79.071	70.553	1.00	36.12	C
	ATOM	442	C	ASN	56C	53.708	75.254	67.691	1.00	39.16	C
	ATOM	443	O	ASN	56C	54.916	75.004	67.754	1.00	40.18	C
	ATOM	444	N	SER	57C	52.935	74.887	66.667	1.00	37.33	C
55	ATOM	445	CA	SER	57C	53.426	74.128	65.513	1.00	36.98	C
	ATOM	446	CB	SER	57C	52.414	73.063	65.078	1.00	38.22	C
	ATOM	447	OG	SER	57C	52.350	71.982	65.976	1.00	45.46	C
	ATOM	448	C	SER	57C	53.687	75.004	64.303	1.00	35.80	C
	ATOM	449	O	SER	57C	53.071	76.054	64.136	1.00	34.15	C

	ATOM	450	N	GLY	58C	54.576	74.523	63.440	1.00	35.45	C
	ATOM	451	CA	GLY	58C	54.932	75.241	62.232	1.00	33.47	C
	ATOM	452	C	GLY	58C	55.496	74.328	61.158	1.00	34.21	C
	ATOM	453	O	GLY	58C	55.419	73.098	61.246	1.00	33.05	C
5	ATOM	454	N	TYR	59C	56.101	74.938	60.151	1.00	33.15	C
	ATOM	455	CA	TYR	59C	56.659	74.201	59.034	1.00	33.03	C
	ATOM	456	CB	TYR	59C	55.751	74.439	57.829	1.00	38.33	C
	ATOM	457	CG	TYR	59C	56.461	74.577	56.512	1.00	43.85	C
	ATOM	458	CD1	TYR	59C	56.723	73.460	55.716	1.00	48.03	C
10	ATOM	459	CE1	TYR	59C	57.407	73.585	54.505	1.00	50.47	C
	ATOM	460	CD2	TYR	59C	56.897	75.822	56.071	1.00	46.11	C
	ATOM	461	CE2	TYR	59C	57.578	75.964	54.872	1.00	49.61	C
	ATOM	462	CZ	TYR	59C	57.833	74.844	54.088	1.00	51.22	C
	ATOM	463	OH	TYR	59C	58.508	74.986	52.888	1.00	51.39	C
15	ATOM	464	C	TYR	59C	58.096	74.614	58.725	1.00	32.66	C
	ATOM	465	O	TYR	59C	58.552	75.675	59.151	1.00	31.29	C
	ATOM	466	N	PHE	60C	58.808	73.763	57.993	1.00	31.38	C
	ATOM	467	CA	PHE	60C	60.183	74.052	57.593	1.00	32.31	C
	ATOM	468	CB	PHE	60C	61.158	73.746	58.742	1.00	30.22	C
20	ATOM	469	CG	PHE	60C	61.557	72.294	58.838	1.00	29.18	C
	ATOM	470	CD1	PHE	60C	62.517	71.758	57.975	1.00	31.18	C
	ATOM	471	CD2	PHE	60C	60.956	71.453	59.772	1.00	27.77	C
	ATOM	472	CE1	PHE	60C	62.871	70.404	58.041	1.00	31.86	C
	ATOM	473	CE2	PHE	60C	61.300	70.102	59.848	1.00	29.71	C
25	ATOM	474	CZ	PHE	60C	62.258	69.574	58.983	1.00	32.51	C
	ATOM	475	C	PHE	60C	60.544	73.201	56.374	1.00	34.26	C
	ATOM	476	O	PHE	60C	59.903	72.184	56.110	1.00	33.77	C
	ATOM	477	N	THR	61C	61.558	73.623	55.622	1.00	34.13	C
	ATOM	478	CA	THR	61C	62.018	72.841	54.480	1.00	33.73	C
30	ATOM	479	CB	THR	61C	61.282	73.190	53.156	1.00	34.96	C
	ATOM	480	OG1	THR	61C	61.723	72.298	52.119	1.00	34.95	C
	ATOM	481	CG2	THR	61C	61.594	74.618	52.713	1.00	32.00	C
	ATOM	482	C	THR	61C	63.499	73.063	54.235	1.00	33.68	C
	ATOM	483	O	THR	61C	64.022	74.150	54.465	1.00	34.70	C
35	ATOM	484	N	LEU	62C	64.181	72.015	53.801	1.00	34.77	C
	ATOM	485	CA	LEU	62C	65.584	72.137	53.447	1.00	35.68	C
	ATOM	486	CB	LEU	62C	66.226	70.750	53.340	1.00	35.08	C
	ATOM	487	CG	LEU	62C	67.676	70.635	52.862	1.00	34.88	C
	ATOM	488	CD1	LEU	62C	68.615	71.242	53.897	1.00	33.54	C
40	ATOM	489	CD2	LEU	62C	68.019	69.172	52.636	1.00	33.50	C
	ATOM	490	C	LEU	62C	65.558	72.796	52.054	1.00	37.05	C
	ATOM	491	O	LEU	62C	64.614	72.592	51.273	1.00	37.53	C
	ATOM	492	N	ILE	63C	66.562	73.607	51.752	1.00	36.52	C
	ATOM	493	CA	ILE	63C	66.640	74.244	50.443	1.00	36.16	C
45	ATOM	494	CB	ILE	63C	66.818	75.757	50.578	1.00	37.06	C
	ATOM	495	CG2	ILE	63C	66.981	76.384	49.198	1.00	35.15	C
	ATOM	496	CG1	ILE	63C	65.618	76.339	51.331	1.00	37.31	C
	ATOM	497	CD	ILE	63C	65.778	77.792	51.731	1.00	38.29	C
	ATOM	498	C	ILE	63C	67.863	73.633	49.770	1.00	36.09	C
50	ATOM	499	O	ILE	63C	68.981	74.096	49.972	1.00	35.38	C
	ATOM	500	N	TYR	64C	67.635	72.579	48.985	1.00	36.69	C
	ATOM	501	CA	TYR	64C	68.708	71.847	48.301	1.00	35.77	C
	ATOM	502	CB	TYR	64C	69.360	72.715	47.216	1.00	34.91	C
	ATOM	503	CG	TYR	64C	70.303	71.943	46.318	1.00	35.87	C
55	ATOM	504	CD1	TYR	64C	69.854	70.846	45.580	1.00	36.49	C
	ATOM	505	CE1	TYR	64C	70.721	70.124	44.759	1.00	37.20	C
	ATOM	506	CD2	TYR	64C	71.647	72.300	46.213	1.00	37.20	C
	ATOM	507	CE2	TYR	64C	72.523	71.590	45.397	1.00	38.56	C
	ATOM	508	CZ	TYR	64C	72.053	70.504	44.672	1.00	39.87	C

	ATOM	509	OH	TYR	64C	72.910	69.813	43.848	1.00	41.82	C
	ATOM	510	C	TYR	64C	69.752	71.391	49.335	1.00	35.39	C
	ATOM	511	O	TYR	64C	69.485	70.471	50.114	1.00	36.07	C
	ATOM	512	N	ASN	65C	70.928	72.019	49.343	1.00	33.98	C
5	ATOM	513	CA	ASN	65C	71.976	71.678	50.314	1.00	35.01	C
	ATOM	514	CB	ASN	65C	73.071	70.811	49.665	1.00	34.00	C
	ATOM	515	CG	ASN	65C	73.907	71.574	48.633	1.00	33.67	C
	ATOM	516	OD1	ASN	65C	73.758	72.787	48.453	1.00	30.98	C
	ATOM	517	ND2	ASN	65C	74.795	70.857	47.958	1.00	30.42	C
10	ATOM	518	C	ASN	65C	72.598	72.968	50.844	1.00	34.65	C
	ATOM	519	O	ASN	65C	73.651	72.955	51.486	1.00	33.16	C
	ATOM	520	N	GLN	66C	71.906	74.072	50.571	1.00	35.63	C
	ATOM	521	CA	GLN	66C	72.339	75.423	50.913	1.00	34.74	C
	ATOM	522	CB	GLN	66C	71.860	76.361	49.810	1.00	35.48	C
15	ATOM	523	CG	GLN	66C	72.338	75.960	48.424	1.00	37.74	C
	ATOM	524	CD	GLN	66C	73.741	76.453	48.142	1.00	39.36	C
	ATOM	525	OE1	GLN	66C	73.976	77.660	48.067	1.00	37.74	C
	ATOM	526	NE2	GLN	66C	74.681	75.524	47.994	1.00	40.23	C
	ATOM	527	C	GLN	66C	71.907	75.987	52.259	1.00	34.24	C
20	ATOM	528	O	GLN	66C	72.709	76.572	52.973	1.00	34.69	C
	ATOM	529	N	GLY	67C	70.631	75.838	52.585	1.00	35.10	C
	ATOM	530	CA	GLY	67C	70.119	76.364	53.835	1.00	33.77	C
	ATOM	531	C	GLY	67C	68.727	75.838	54.103	1.00	35.01	C
	ATOM	532	O	GLY	67C	68.370	74.750	53.647	1.00	34.04	C
25	ATOM	533	N	PHE	68C	67.923	76.617	54.819	1.00	33.97	C
	ATOM	534	CA	PHE	68C	66.573	76.183	55.150	1.00	35.94	C
	ATOM	535	CB	PHE	68C	66.622	75.294	56.390	1.00	36.57	C
	ATOM	536	CG	PHE	68C	67.162	75.998	57.598	1.00	37.62	C
	ATOM	537	CD1	PHE	68C	68.515	75.934	57.913	1.00	39.82	C
30	ATOM	538	CD2	PHE	68C	66.332	76.782	58.392	1.00	40.59	C
	ATOM	539	CE1	PHE	68C	69.032	76.640	58.997	1.00	39.10	C
	ATOM	540	CE2	PHE	68C	66.844	77.494	59.480	1.00	41.25	C
	ATOM	541	CZ	PHE	68C	68.195	77.420	59.780	1.00	39.41	C
	ATOM	542	C	PHE	68C	65.641	77.353	55.447	1.00	34.86	C
35	ATOM	543	O	PHE	68C	66.094	78.454	55.751	1.00	35.84	C
	ATOM	544	N	GLU	69C	64.337	77.113	55.349	1.00	33.32	C
	ATOM	545	CA	GLU	69C	63.363	78.140	55.696	1.00	32.23	C
	ATOM	546	CB	GLU	69C	62.569	78.640	54.494	1.00	30.52	C
	ATOM	547	CG	GLU	69C	61.653	79.786	54.897	1.00	30.24	C
40	ATOM	548	CD	GLU	69C	60.866	80.385	53.751	1.00	33.08	C
	ATOM	549	OE1	GLU	69C	60.007	79.681	53.173	1.00	31.99	C
	ATOM	550	OE2	GLU	69C	61.105	81.570	53.433	1.00	33.81	C
	ATOM	551	C	GLU	69C	62.389	77.580	56.722	1.00	32.02	C
	ATOM	552	O	GLU	69C	61.886	76.461	56.578	1.00	32.21	C
45	ATOM	553	N	ILE	70C	62.134	78.359	57.764	1.00	31.77	C
	ATOM	554	CA	ILE	70C	61.204	77.951	58.809	1.00	31.09	C
	ATOM	555	CB	ILE	70C	61.884	77.864	60.194	1.00	30.01	C
	ATOM	556	CG2	ILE	70C	60.852	77.473	61.243	1.00	30.54	C
	ATOM	557	CG1	ILE	70C	63.035	76.858	60.174	1.00	29.32	C
50	ATOM	558	CD	ILE	70C	63.830	76.829	61.460	1.00	23.21	C
	ATOM	559	C	ILE	70C	60.081	78.971	58.932	1.00	31.52	C
	ATOM	560	O	ILE	70C	60.333	80.173	58.996	1.00	31.06	C
	ATOM	561	N	VAL	71C	58.840	78.493	58.947	1.00	31.11	C
	ATOM	562	CA	VAL	71C	57.693	79.376	59.111	1.00	32.10	C
55	ATOM	563	CB	VAL	71C	56.738	79.317	57.909	1.00	32.27	C
	ATOM	564	CG1	VAL	71C	55.571	80.277	58.136	1.00	32.02	C
	ATOM	565	CG2	VAL	71C	57.482	79.695	56.640	1.00	31.98	C
	ATOM	566	C	VAL	71C	56.984	78.891	60.369	1.00	32.86	C
	ATOM	567	O	VAL	71C	56.384	77.827	60.385	1.00	33.28	C

	ATOM	568	N	LEU	72C	57.082	79.681	61.427	1.00	33.70	C
	ATOM	569	CA	LEU	72C	56.501	79.341	62.712	1.00	33.37	C
	ATOM	570	CB	LEU	72C	57.544	78.586	63.535	1.00	32.53	C
	ATOM	571	CG	LEU	72C	57.213	78.193	64.968	1.00	32.64	C
5	ATOM	572	CD1	LEU	72C	56.038	77.227	64.975	1.00	31.36	C
	ATOM	573	CD2	LEU	72C	58.440	77.557	65.606	1.00	31.51	C
	ATOM	574	C	LEU	72C	56.101	80.626	63.424	1.00	34.48	C
	ATOM	575	O	LEU	72C	56.814	81.620	63.352	1.00	35.76	C
	ATOM	576	N	ASN	73C	54.961	80.601	64.109	1.00	35.95	C
10	ATOM	577	CA	ASN	73C	54.460	81.771	64.827	1.00	34.85	C
	ATOM	578	CB	ASN	73C	55.306	82.035	66.072	1.00	34.75	C
	ATOM	579	CG	ASN	73C	55.185	80.927	67.093	1.00	35.52	C
	ATOM	580	OD1	ASN	73C	54.085	80.480	67.399	1.00	36.76	C
	ATOM	581	ND2	ASN	73C	56.313	80.480	67.629	1.00	33.15	C
15	ATOM	582	C	ASN	73C	54.418	83.020	63.950	1.00	34.88	C
	ATOM	583	O	ASN	73C	54.743	84.121	64.392	1.00	34.38	C
	ATOM	584	N	ASP	74C	53.996	82.832	62.703	1.00	35.59	C
	ATOM	585	CA	ASP	74C	53.888	83.914	61.733	1.00	34.82	C
	ATOM	586	CB	ASP	74C	52.811	84.906	62.159	1.00	35.59	C
20	ATOM	587	CG	ASP	74C	51.420	84.402	61.853	1.00	34.88	C
	ATOM	588	OD1	ASP	74C	51.256	83.797	60.779	1.00	33.21	C
	ATOM	589	OD2	ASP	74C	50.500	84.618	62.668	1.00	36.74	C
	ATOM	590	C	ASP	74C	55.186	84.645	61.438	1.00	34.33	C
	ATOM	591	O	ASP	74C	55.195	85.837	61.131	1.00	32.04	C
25	ATOM	592	N	TYR	75C	56.284	83.908	61.539	1.00	34.42	C
	ATOM	593	CA	TYR	75C	57.594	84.444	61.237	1.00	33.61	C
	ATOM	594	CB	TYR	75C	58.430	84.647	62.502	1.00	33.31	C
	ATOM	595	CG	TYR	75C	58.095	85.929	63.232	1.00	36.58	C
	ATOM	596	CD1	TYR	75C	57.210	85.931	64.317	1.00	33.13	C
30	ATOM	597	CE1	TYR	75C	56.855	87.112	64.955	1.00	35.14	C
	ATOM	598	CD2	TYR	75C	58.623	87.152	62.805	1.00	34.19	C
	ATOM	599	CE2	TYR	75C	58.270	88.347	63.436	1.00	37.25	C
	ATOM	600	CZ	TYR	75C	57.384	88.318	64.512	1.00	38.32	C
	ATOM	601	OH	TYR	75C	57.020	89.496	65.135	1.00	39.25	C
35	ATOM	602	C	TYR	75C	58.296	83.476	60.314	1.00	32.51	C
	ATOM	603	O	TYR	75C	58.221	82.268	60.498	1.00	34.66	C
	ATOM	604	N	LYS	76C	58.953	84.015	59.298	1.00	32.16	C
	ATOM	605	CA	LYS	76C	59.697	83.199	58.364	1.00	31.29	C
	ATOM	606	CB	LYS	76C	59.380	83.600	56.921	1.00	28.63	C
40	ATOM	607	CG	LYS	76C	57.940	83.355	56.519	1.00	26.38	C
	ATOM	608	CD	LYS	76C	57.764	83.456	55.023	1.00	27.45	C
	ATOM	609	CE	LYS	76C	56.348	83.128	54.603	1.00	26.33	C
	ATOM	610	NZ	LYS	76C	56.269	82.916	53.139	1.00	28.04	C
	ATOM	611	C	LYS	76C	61.177	83.410	58.662	1.00	33.70	C
45	ATOM	612	O	LYS	76C	61.645	84.544	58.746	1.00	33.28	C
	ATOM	613	N	TRP	77C	61.898	82.313	58.865	1.00	35.54	C
	ATOM	614	CA	TRP	77C	63.327	82.377	59.138	1.00	36.00	C
	ATOM	615	CB	TRP	77C	63.718	81.603	60.409	1.00	36.13	C
	ATOM	616	CG	TRP	77C	62.964	81.927	61.666	1.00	37.52	C
50	ATOM	617	CD2	TRP	77C	63.500	82.524	62.856	1.00	37.97	C
	ATOM	618	CE2	TRP	77C	62.463	82.542	63.816	1.00	38.05	C
	ATOM	619	CE3	TRP	77C	64.760	83.042	63.204	1.00	39.70	C
	ATOM	620	CD1	TRP	77C	61.662	81.626	61.941	1.00	34.97	C
	ATOM	621	NE1	TRP	77C	61.356	81.986	63.232	1.00	39.36	C
55	ATOM	622	CZ2	TRP	77C	62.639	83.058	65.105	1.00	39.78	C
	ATOM	623	CZ3	TRP	77C	64.941	83.555	64.485	1.00	41.32	C
	ATOM	624	CH2	TRP	77C	63.881	83.558	65.425	1.00	43.28	C
	ATOM	625	C	TRP	77C	64.056	81.723	57.979	1.00	37.11	C
	ATOM	626	O	TRP	77C	63.663	80.653	57.499	1.00	35.79	C

	ATOM	627	N	PHE	78C	65.121	82.370	57.537	1.00	37.08	C
	ATOM	628	CA	PHE	78C	65.931	81.827	56.472	1.00	38.94	C
	ATOM	629	CB	PHE	78C	65.505	82.372	55.112	1.00	38.02	C
	ATOM	630	CG	PHE	78C	66.543	82.161	54.053	1.00	38.34	C
5	ATOM	631	CD1	PHE	78C	66.935	80.875	53.701	1.00	37.23	C
	ATOM	632	CD2	PHE	78C	67.205	83.242	53.484	1.00	39.26	C
	ATOM	633	CE1	PHE	78C	67.971	80.663	52.809	1.00	37.38	C
	ATOM	634	CE2	PHE	78C	68.248	83.044	52.586	1.00	40.13	C
	ATOM	635	CZ	PHE	78C	68.635	81.750	52.249	1.00	39.92	C
10	ATOM	636	C	PHE	78C	67.412	82.151	56.690	1.00	40.06	C
	ATOM	637	O	PHE	78C	67.771	83.243	57.149	1.00	39.19	C
	ATOM	638	N	ALC	79C	68.266	81.195	56.339	1.00	39.24	C
	ATOM	639	CA	ALC	79C	69.703	81.374	56.465	1.00	38.82	C
	ATOM	640	CB	ALC	79C	70.123	81.318	57.950	1.00	36.80	C
15	ATOM	641	C	ALC	79C	70.414	80.283	55.691	1.00	37.17	C
	ATOM	642	O	ALC	79C	69.895	79.178	55.567	1.00	35.18	C
	ATOM	643	N	PHE	80C	71.586	80.612	55.150	1.00	38.42	C
	ATOM	644	CA	PHE	80C	72.412	79.640	54.443	1.00	36.14	C
	ATOM	645	CB	PHE	80C	73.345	80.329	53.442	1.00	35.01	C
20	ATOM	646	CG	PHE	80C	72.655	80.850	52.215	1.00	32.12	C
	ATOM	647	CD1	PHE	80C	72.555	82.220	51.985	1.00	33.44	C
	ATOM	648	CD2	PHE	80C	72.135	79.975	51.268	1.00	31.48	C
	ATOM	649	CE1	PHE	80C	71.948	82.718	50.824	1.00	31.32	C
	ATOM	650	CE2	PHE	80C	71.525	80.456	50.104	1.00	31.32	C
25	ATOM	651	CZ	PHE	80C	71.434	81.833	49.883	1.00	31.85	C
	ATOM	652	C	PHE	80C	73.250	78.978	55.541	1.00	36.13	C
	ATOM	653	O	PHE	80C	73.496	79.580	56.593	1.00	35.42	C
	ATOM	654	N	PHE	81C	73.673	77.738	55.309	1.00	36.65	C
	ATOM	655	CA	PHE	81C	74.488	77.009	56.296	1.00	38.86	C
30	ATOM	656	CB	PHE	81C	74.625	75.547	55.881	1.00	38.89	C
	ATOM	657	CG	PHE	81C	73.402	74.708	56.204	1.00	37.80	C
	ATOM	658	CD1	PHE	81C	72.543	74.304	55.182	1.00	37.44	C
	ATOM	659	CD2	PHE	81C	73.140	74.338	57.523	1.00	35.62	C
	ATOM	660	CE1	PHE	81C	71.424	73.523	55.478	1.00	38.03	C
35	ATOM	661	CE2	PHE	81C	72.022	73.556	57.821	1.00	36.54	C
	ATOM	662	CZ	PHE	81C	71.164	73.147	56.799	1.00	38.97	C
	ATOM	663	C	PHE	81C	75.886	77.629	56.389	1.00	38.77	C
	ATOM	664	O	PHE	81C	76.405	78.177	55.418	1.00	39.84	C
	ATOM	665	N	LYS	82C	76.486	77.521	57.584	1.00	39.16	C
40	ATOM	666	CA	LYS	82C	77.827	78.089	57.805	1.00	39.63	C
	ATOM	667	CB	LYS	82C	78.201	78.086	59.295	1.00	39.47	C
	ATOM	668	CG	LYS	82C	79.226	79.230	59.629	1.00	40.54	C
	ATOM	669	CD	LYS	82C	79.740	79.137	61.011	1.00	44.88	C
	ATOM	670	CE	LYS	82C	81.131	79.576	61.504	1.00	45.44	C
45	ATOM	671	NZ	LYS	82C	81.054	80.772	62.377	1.00	45.43	C
	ATOM	672	C	LYS	82C	78.886	77.281	57.048	1.00	40.84	C
	ATOM	673	O	LYS	82C	78.863	76.044	57.033	1.00	41.13	C
	ATOM	674	N	TYR	83C	79.807	77.989	56.427	1.00	40.99	C
	ATOM	675	CA	TYR	83C	80.875	77.332	55.669	1.00	40.95	C
50	ATOM	676	CB	TYR	83C	80.444	77.168	54.210	1.00	39.67	C
	ATOM	677	CG	TYR	83C	80.209	78.496	53.507	1.00	40.75	C
	ATOM	678	CD1	TYR	83C	81.282	79.186	52.947	1.00	40.79	C
	ATOM	679	CE1	TYR	83C	81.076	80.410	52.312	1.00	40.62	C
	ATOM	680	CD2	TYR	83C	78.924	79.032	53.421	1.00	39.70	C
55	ATOM	681	CE2	TYR	83C	78.716	80.258	52.789	1.00	41.68	C
	ATOM	682	CZ	TYR	83C	79.793	80.949	52.236	1.00	42.16	C
	ATOM	683	OH	TYR	83C	79.597	82.156	51.625	1.00	41.02	C
	ATOM	684	C	TYR	83C	82.169	78.150	55.735	1.00	40.59	C
	ATOM	685	O	TYR	83C	82.148	79.367	55.938	1.00	40.43	C

	ATOM	686	N	GLU	84C	83.300	77.457	55.604	1.00	41.04	C
	ATOM	687	CA	GLU	84C	84.618	78.087	55.619	1.00	41.84	C
	ATOM	688	CB	GLU	84C	85.453	77.577	56.796	1.00	44.34	C
	ATOM	689	CG	GLU	84C	86.901	78.076	56.784	1.00	49.23	C
5	ATOM	690	CD	GLU	84C	87.797	77.330	57.765	1.00	52.74	C
	ATOM	691	OE1	GLU	84C	87.369	77.146	58.930	1.00	54.27	C
	ATOM	692	OE2	GLU	84C	88.930	76.935	57.378	1.00	54.69	C
	ATOM	693	C	GLU	84C	85.327	77.723	54.316	1.00	40.03	C
	ATOM	694	O	GLU	84C	85.534	76.546	54.024	1.00	39.14	C
10	ATOM	695	N	VAL	85C	85.701	78.723	53.532	1.00	39.37	C
	ATOM	696	CA	VAL	85C	86.381	78.442	52.281	1.00	40.47	C
	ATOM	697	CB	VAL	85C	86.273	79.618	51.307	1.00	40.13	C
	ATOM	698	CG1	VAL	85C	87.071	79.311	50.043	1.00	37.58	C
	ATOM	699	CG2	VAL	85C	84.808	79.887	50.987	1.00	36.90	C
15	ATOM	700	C	VAL	85C	87.858	78.120	52.490	1.00	42.17	C
	ATOM	701	O	VAL	85C	88.558	78.829	53.215	1.00	41.84	C
	ATOM	702	N	LYS	86C	88.301	77.031	51.860	1.00	42.56	C
	ATOM	703	CA	LYS	86C	89.686	76.563	51.912	1.00	43.52	C
	ATOM	704	CB	LYS	86C	89.769	75.188	52.593	1.00	43.92	C
20	ATOM	705	CG	LYS	86C	89.347	75.144	54.069	1.00	45.54	C
	ATOM	706	CD	LYS	86C	90.548	75.223	55.022	1.00	43.64	C
	ATOM	707	CE	LYS	86C	91.388	76.476	54.783	1.00	44.32	C
	ATOM	708	NZ	LYS	86C	90.595	77.730	54.915	1.00	44.91	C
	ATOM	709	C	LYS	86C	90.127	76.423	50.449	1.00	45.49	C
25	ATOM	710	O	LYS	86C	90.141	75.314	49.896	1.00	45.85	C
	ATOM	711	N	GLY	87C	90.468	77.537	49.812	1.00	45.28	C
	ATOM	712	CA	GLY	87C	90.866	77.465	48.417	1.00	45.57	C
	ATOM	713	C	GLY	87C	89.694	77.201	47.480	1.00	46.67	C
	ATOM	714	O	GLY	87C	88.732	77.973	47.433	1.00	47.07	C
30	ATOM	715	N	SER	88C	89.758	76.106	46.729	1.00	48.07	C
	ATOM	716	CA	SER	88C	88.687	75.787	45.787	1.00	49.55	C
	ATOM	717	CB	SER	88C	89.250	75.094	44.542	1.00	48.09	C
	ATOM	718	OG	SER	88C	89.524	73.731	44.817	1.00	52.48	C
	ATOM	719	C	SER	88C	87.636	74.890	46.429	1.00	49.64	C
35	ATOM	720	O	SER	88C	86.612	74.570	45.808	1.00	49.19	C
	ATOM	721	N	ARG	89C	87.909	74.463	47.660	1.00	49.72	C
	ATOM	722	CA	ARG	89C	86.980	73.623	48.407	1.00	48.68	C
	ATOM	723	CB	ARG	89C	87.679	72.376	48.953	1.00	50.86	C
	ATOM	724	CG	ARG	89C	88.149	71.378	47.900	1.00	52.86	C
40	ATOM	725	CD	ARG	89C	87.022	70.938	46.967	1.00	54.79	C
	ATOM	726	NE	ARG	89C	87.210	69.551	46.542	1.00	56.51	C
	ATOM	727	CZ	ARG	89C	86.864	68.493	47.277	1.00	57.37	C
	ATOM	728	NH1	ARG	89C	86.297	68.664	48.469	1.00	56.45	C
	ATOM	729	NH2	ARG	89C	87.121	67.264	46.843	1.00	57.89	C
45	ATOM	730	C	ARG	89C	86.454	74.453	49.566	1.00	48.17	C
	ATOM	731	O	ARG	89C	86.626	75.679	49.590	1.00	48.21	C
	ATOM	732	N	ALC	90C	85.815	73.790	50.527	1.00	46.72	C
	ATOM	733	CA	ALC	90C	85.269	74.478	51.693	1.00	44.65	C
	ATOM	734	CB	ALC	90C	84.101	75.359	51.275	1.00	44.08	C
50	ATOM	735	C	ALC	90C	84.812	73.493	52.761	1.00	43.04	C
	ATOM	736	O	ALC	90C	84.489	72.343	52.456	1.00	41.51	C
	ATOM	737	N	ILE	91C	84.808	73.943	54.014	1.00	42.02	C
	ATOM	738	CA	ILE	91C	84.347	73.114	55.131	1.00	41.76	C
	ATOM	739	CB	ILE	91C	85.248	73.271	56.374	1.00	40.76	C
55	ATOM	740	CG2	ILE	91C	84.659	72.483	57.542	1.00	39.10	C
	ATOM	741	CG1	ILE	91C	86.658	72.780	56.061	1.00	40.98	C
	ATOM	742	CD	ILE	91C	87.631	72.931	57.216	1.00	40.71	C
	ATOM	743	C	ILE	91C	82.921	73.544	55.513	1.00	40.39	C
	ATOM	744	O	ILE	91C	82.653	74.729	55.691	1.00	40.05	C

	ATOM	745	N	SER	92C	82.008	72.587	55.633	1.00	40.51	C
	ATOM	746	CA	SER	92C	80.629	72.913	55.996	1.00	40.78	C
	ATOM	747	CB	SER	92C	79.640	72.071	55.186	1.00	38.14	C
	ATOM	748	OG	SER	92C	79.640	72.428	53.821	1.00	35.99	C
5	ATOM	749	C	SER	92C	80.360	72.682	57.478	1.00	41.54	C
	ATOM	750	O	SER	92C	80.657	71.613	58.009	1.00	42.68	C
	ATOM	751	N	TYR	93C	79.818	73.695	58.142	1.00	41.16	C
	ATOM	752	CA	TYR	93C	79.461	73.584	59.555	1.00	40.72	C
	ATOM	753	CB	TYR	93C	79.995	74.787	60.343	1.00	41.96	C
10	ATOM	754	CG	TYR	93C	81.506	74.899	60.307	1.00	44.64	C
	ATOM	755	CD1	TYR	93C	82.147	75.735	59.384	1.00	46.34	C
	ATOM	756	CE1	TYR	93C	83.547	75.803	59.313	1.00	46.11	C
	ATOM	757	CD2	TYR	93C	82.304	74.129	61.163	1.00	45.31	C
	ATOM	758	CE2	TYR	93C	83.702	74.183	61.101	1.00	45.89	C
15	ATOM	759	CZ	TYR	93C	84.321	75.023	60.174	1.00	48.13	C
	ATOM	760	OH	TYR	93C	85.705	75.094	60.120	1.00	46.00	C
	ATOM	761	C	TYR	93C	77.933	73.574	59.520	1.00	40.66	C
	ATOM	762	O	TYR	93C	77.283	74.600	59.740	1.00	39.98	C
	ATOM	763	N	CYS	94C	77.381	72.399	59.218	1.00	38.64	C
20	ATOM	764	CA	CYS	94C	75.948	72.191	59.059	1.00	37.73	C
	ATOM	765	C	CYS	94C	75.069	72.302	60.307	1.00	39.66	C
	ATOM	766	O	CYS	94C	73.844	72.095	60.247	1.00	35.82	C
	ATOM	767	CB	CYS	94C	75.721	70.845	58.377	1.00	36.43	C
	ATOM	768	SG	CYS	94C	76.556	70.702	56.759	1.00	39.15	C
25	ATOM	769	N	HIS	95C	75.688	72.620	61.438	1.00	38.63	C
	ATOM	770	CA	HIS	95C	74.939	72.789	62.669	1.00	39.42	C
	ATOM	771	CB	HIS	95C	75.542	71.950	63.796	1.00	40.91	C
	ATOM	772	CG	HIS	95C	75.334	70.479	63.622	1.00	43.86	C
	ATOM	773	CD2	HIS	95C	74.771	69.770	62.614	1.00	45.44	C
30	ATOM	774	ND1	HIS	95C	75.726	69.555	64.568	1.00	45.86	C
	ATOM	775	CE1	HIS	95C	75.412	68.339	64.151	1.00	45.81	C
	ATOM	776	NE2	HIS	95C	74.832	68.441	62.968	1.00	46.74	C
	ATOM	777	C	HIS	95C	74.953	74.261	63.029	1.00	38.27	C
	ATOM	778	O	HIS	95C	74.557	74.653	64.121	1.00	38.98	C
35	ATOM	779	N	GLU	96C	75.410	75.076	62.088	1.00	37.66	C
	ATOM	780	CA	GLU	96C	75.465	76.519	62.274	1.00	37.52	C
	ATOM	781	CB	GLU	96C	76.895	76.962	62.557	1.00	39.24	C
	ATOM	782	CG	GLU	96C	77.330	76.722	63.989	1.00	41.81	C
	ATOM	783	CD	GLU	96C	78.791	77.049	64.217	1.00	42.38	C
40	ATOM	784	OE1	GLU	96C	79.635	76.133	64.071	1.00	42.36	C
	ATOM	785	OE2	GLU	96C	79.085	78.225	64.531	1.00	41.56	C
	ATOM	786	C	GLU	96C	74.960	77.194	61.017	1.00	36.92	C
	ATOM	787	O	GLU	96C	74.752	76.538	60.002	1.00	38.19	C
	ATOM	788	N	THR	97C	74.764	78.506	61.074	1.00	37.24	C
45	ATOM	789	CA	THR	97C	74.289	79.230	59.906	1.00	37.23	C
	ATOM	790	CB	THR	97C	72.807	79.659	60.053	1.00	36.05	C
	ATOM	791	OG1	THR	97C	72.733	80.848	60.848	1.00	32.20	C
	ATOM	792	CG2	THR	97C	71.989	78.565	60.713	1.00	34.02	C
	ATOM	793	C	THR	97C	75.087	80.506	59.717	1.00	39.66	C
50	ATOM	794	O	THR	97C	75.785	80.957	60.626	1.00	39.34	C
	ATOM	795	N	MET	98C	74.986	81.080	58.523	1.00	40.43	C
	ATOM	796	CA	MET	98C	75.631	82.354	58.247	1.00	41.24	C
	ATOM	797	CB	MET	98C	75.754	82.574	56.736	1.00	40.81	C
	ATOM	798	CG	MET	98C	76.676	81.575	56.027	1.00	43.49	C
55	ATOM	799	SD	MET	98C	78.424	81.642	56.616	1.00	49.18	C
	ATOM	800	CE	MET	98C	79.001	83.148	55.719	1.00	44.25	C
	ATOM	801	C	MET	98C	74.603	83.314	58.848	1.00	41.94	C
	ATOM	802	O	MET	98C	73.617	82.861	59.426	1.00	43.14	C
	ATOM	803	N	THR	99C	74.806	84.619	58.741	1.00	42.89	C

	ATOM	804	CA	THR	99C	73.822	85.542	59.292	1.00	43.20	C
	ATOM	805	CB	THR	99C	74.340	87.005	59.301	1.00	42.98	C
	ATOM	806	OG1	THR	99C	75.491	87.098	60.148	1.00	43.70	C
	ATOM	807	CG2	THR	99C	73.272	87.950	59.836	1.00	42.38	C
5	ATOM	808	C	THR	99C	72.578	85.453	58.413	1.00	43.41	C
	ATOM	809	O	THR	99C	72.653	85.651	57.198	1.00	43.67	C
	ATOM	810	N	GLY	100C	71.437	85.146	59.024	1.00	43.83	C
	ATOM	811	CA	GLY	100C	70.207	85.025	58.261	1.00	42.40	C
	ATOM	812	C	GLY	100C	69.203	86.127	58.526	1.00	42.10	C
10	ATOM	813	O	GLY	100C	69.433	86.994	59.372	1.00	43.23	C
	ATOM	814	N	TRP	101C	68.088	86.075	57.796	1.00	41.54	C
	ATOM	815	CA	TRP	101C	66.998	87.046	57.899	1.00	38.65	C
	ATOM	816	CB	TRP	101C	66.638	87.594	56.520	1.00	37.60	C
	ATOM	817	CG	TRP	101C	67.755	88.214	55.751	1.00	38.17	C
15	ATOM	818	CD2	TRP	101C	68.773	87.524	55.022	1.00	35.93	C
	ATOM	819	CE2	TRP	101C	69.558	88.502	54.374	1.00	37.52	C
	ATOM	820	CE3	TRP	101C	69.097	86.169	54.850	1.00	36.75	C
	ATOM	821	CD1	TRP	101C	67.959	89.549	55.531	1.00	36.86	C
	ATOM	822	NE1	TRP	101C	69.039	89.729	54.701	1.00	39.16	C
20	ATOM	823	CZ2	TRP	101C	70.648	88.172	53.561	1.00	36.93	C
	ATOM	824	CZ3	TRP	101C	70.182	85.838	54.042	1.00	37.33	C
	ATOM	825	CH2	TRP	101C	70.944	86.839	53.407	1.00	37.88	C
	ATOM	826	C	TRP	101C	65.728	86.415	58.465	1.00	39.41	C
	ATOM	827	O	TRP	101C	65.342	85.317	58.070	1.00	39.32	C
25	ATOM	828	N	VAL	102C	65.071	87.121	59.377	1.00	38.94	C
	ATOM	829	CA	VAL	102C	63.820	86.648	59.962	1.00	37.82	C
	ATOM	830	CB	VAL	102C	64.002	86.189	61.426	1.00	38.60	C
	ATOM	831	CG1	VAL	102C	64.714	87.271	62.233	1.00	35.67	C
	ATOM	832	CG2	VAL	102C	62.635	85.884	62.045	1.00	36.17	C
30	ATOM	833	C	VAL	102C	62.823	87.806	59.933	1.00	37.78	C
	ATOM	834	O	VAL	102C	63.177	88.946	60.226	1.00	36.73	C
	ATOM	835	N	HIS	103C	61.583	87.519	59.570	1.00	37.51	C
	ATOM	836	CA	HIS	103C	60.569	88.560	59.513	1.00	38.11	C
	ATOM	837	CB	HIS	103C	60.759	89.397	58.236	1.00	39.51	C
35	ATOM	838	CG	HIS	103C	60.626	88.619	56.958	1.00	41.39	C
	ATOM	839	CD2	HIS	103C	61.532	88.334	55.990	1.00	41.87	C
	ATOM	840	ND1	HIS	103C	59.428	88.097	56.522	1.00	41.56	C
	ATOM	841	CE1	HIS	103C	59.599	87.530	55.339	1.00	42.43	C
	ATOM	842	NE2	HIS	103C	60.867	87.661	54.994	1.00	40.73	C
40	ATOM	843	C	HIS	103C	59.164	87.963	59.578	1.00	37.50	C
	ATOM	844	O	HIS	103C	58.985	86.778	59.318	1.00	36.51	C
	ATOM	845	N	ASP	104C	58.171	88.768	59.947	1.00	37.38	C
	ATOM	846	CA	ASP	104C	56.803	88.248	60.013	1.00	36.88	C
	ATOM	847	CB	ASP	104C	55.876	89.221	60.755	1.00	36.02	C
45	ATOM	848	CG	ASP	104C	55.873	90.600	60.151	1.00	38.57	C
	ATOM	849	OD1	ASP	104C	56.208	91.557	60.890	1.00	38.16	C
	ATOM	850	OD2	ASP	104C	55.535	90.732	58.949	1.00	35.46	C
	ATOM	851	C	ASP	104C	56.306	87.975	58.594	1.00	35.42	C
	ATOM	852	O	ASP	104C	56.857	88.496	57.625	1.00	34.95	C
50	ATOM	853	N	VAL	105C	55.273	87.152	58.475	1.00	33.60	C
	ATOM	854	CA	VAL	105C	54.743	86.766	57.173	1.00	32.29	C
	ATOM	855	CB	VAL	105C	53.553	85.792	57.349	1.00	31.63	C
	ATOM	856	CG1	VAL	105C	54.005	84.568	58.135	1.00	30.32	C
	ATOM	857	CG2	VAL	105C	52.414	86.475	58.069	1.00	27.80	C
55	ATOM	858	C	VAL	105C	54.349	87.904	56.225	1.00	33.05	C
	ATOM	859	O	VAL	105C	54.115	87.671	55.038	1.00	31.76	C
	ATOM	860	N	LEU	106C	54.292	89.128	56.745	1.00	32.31	C
	ATOM	861	CA	LEU	106C	53.938	90.296	55.942	1.00	31.31	C
	ATOM	862	CB	LEU	106C	52.971	91.192	56.724	1.00	30.02	C

	ATOM	863	CG	LEU	106C	51.558	90.643	56.950	1.00	31.66	C
	ATOM	864	CD1	LEU	106C	50.889	91.386	58.086	1.00	25.76	C
	ATOM	865	CD2	LEU	106C	50.751	90.753	55.658	1.00	27.26	C
	ATOM	866	C	LEU	106C	55.175	91.107	55.535	1.00	32.32	C
5	ATOM	867	O	LEU	106C	55.094	92.024	54.719	1.00	32.18	C
	ATOM	868	N	GLY	107C	56.320	90.762	56.110	1.00	32.88	C
	ATOM	869	CA	GLY	107C	57.543	91.477	55.805	1.00	33.74	C
	ATOM	870	C	GLY	107C	57.627	92.806	56.534	1.00	34.80	C
	ATOM	871	O	GLY	107C	58.457	93.656	56.203	1.00	34.00	C
10	ATOM	872	N	ARG	108C	56.773	92.986	57.537	1.00	34.65	C
	ATOM	873	CA	ARG	108C	56.747	94.230	58.308	1.00	35.31	C
	ATOM	874	CB	ARG	108C	55.460	94.297	59.138	1.00	35.78	C
	ATOM	875	CG	ARG	108C	54.177	94.233	58.321	1.00	35.90	C
	ATOM	876	CD	ARG	108C	53.882	95.533	57.586	1.00	34.67	C
15	ATOM	877	NE	ARG	108C	52.539	95.501	57.023	1.00	34.30	C
	ATOM	878	CZ	ARG	108C	52.248	95.095	55.793	1.00	34.94	C
	ATOM	879	NH1	ARG	108C	53.217	94.701	54.980	1.00	33.52	C
	ATOM	880	NH2	ARG	108C	50.982	95.040	55.390	1.00	34.11	C
	ATOM	881	C	ARG	108C	57.964	94.412	59.229	1.00	35.34	C
20	ATOM	882	O	ARG	108C	58.742	95.347	59.051	1.00	33.84	C
	ATOM	883	N	ASN	109C	58.122	93.525	60.209	1.00	34.21	C
	ATOM	884	CA	ASN	109C	59.247	93.607	61.139	1.00	34.56	C
	ATOM	885	CB	ASN	109C	58.756	93.395	62.572	1.00	33.46	C
	ATOM	886	CG	ASN	109C	57.856	94.511	63.038	1.00	36.30	C
25	ATOM	887	OD1	ASN	109C	58.162	95.677	62.831	1.00	37.28	C
	ATOM	888	ND2	ASN	109C	56.742	94.165	63.672	1.00	37.52	C
	ATOM	889	C	ASN	109C	60.376	92.615	60.827	1.00	34.94	C
	ATOM	890	O	ASN	109C	60.162	91.404	60.780	1.00	33.89	C
	ATOM	891	N	TRP	110C	61.583	93.133	60.627	1.00	34.48	C
30	ATOM	892	CA	TRP	110C	62.727	92.280	60.314	1.00	35.17	C
	ATOM	893	CB	TRP	110C	63.370	92.691	58.990	1.00	32.70	C
	ATOM	894	CG	TRP	110C	62.509	92.530	57.776	1.00	34.21	C
	ATOM	895	CD2	TRP	110C	62.845	91.806	56.579	1.00	33.47	C
	ATOM	896	CE2	TRP	110C	61.793	92.012	55.656	1.00	33.75	C
35	ATOM	897	CE3	TRP	110C	63.936	91.010	56.197	1.00	32.14	C
	ATOM	898	CD1	TRP	110C	61.297	93.119	57.538	1.00	34.45	C
	ATOM	899	NE1	TRP	110C	60.864	92.816	56.264	1.00	35.76	C
	ATOM	900	CZ2	TRP	110C	61.800	91.451	54.373	1.00	31.68	C
	ATOM	901	CZ3	TRP	110C	63.942	90.453	54.914	1.00	31.39	C
40	ATOM	902	CH2	TRP	110C	62.881	90.678	54.023	1.00	30.25	C
	ATOM	903	C	TRP	110C	63.810	92.302	61.382	1.00	36.33	C
	ATOM	904	O	TRP	110C	63.831	93.156	62.268	1.00	36.49	C
	ATOM	905	N	ALA	111C	64.724	91.350	61.271	1.00	36.87	C
	ATOM	906	CA	ALA	111C	65.843	91.240	62.190	1.00	37.24	C
45	ATOM	907	CB	ALA	111C	65.362	90.761	63.544	1.00	35.55	C
	ATOM	908	C	ALA	111C	66.807	90.235	61.591	1.00	37.20	C
	ATOM	909	O	ALA	111C	66.410	89.396	60.787	1.00	39.28	C
	ATOM	910	N	CYS	112C	68.077	90.331	61.957	1.00	37.49	C
	ATOM	911	CA	CYS	112C	69.064	89.388	61.459	1.00	37.32	C
50	ATOM	912	C	CYS	112C	69.256	88.379	62.577	1.00	36.72	C
	ATOM	913	O	CYS	112C	68.979	88.675	63.740	1.00	35.91	C
	ATOM	914	CB	CYS	112C	70.382	90.094	61.157	1.00	37.03	C
	ATOM	915	SG	CYS	112C	70.243	91.450	59.953	1.00	43.03	C
	ATOM	916	N	PHE	113C	69.721	87.187	62.236	1.00	36.33	C
55	ATOM	917	CA	PHE	113C	69.927	86.170	63.255	1.00	36.32	C
	ATOM	918	CB	PHE	113C	68.616	85.404	63.504	1.00	33.39	C
	ATOM	919	CG	PHE	113C	68.319	84.336	62.475	1.00	33.68	C
	ATOM	920	CD1	PHE	113C	68.720	83.017	62.683	1.00	32.68	C
	ATOM	921	CD2	PHE	113C	67.639	84.648	61.301	1.00	31.95	C

	ATOM	922	CE1	PHE	113C	68.447	82.029	61.745	1.00	32.07	C
	ATOM	923	CE2	PHE	113C	67.361	83.662	60.355	1.00	31.07	C
	ATOM	924	CZ	PHE	113C	67.766	82.353	60.581	1.00	31.20	C
	ATOM	925	C	PHE	113C	71.021	85.195	62.852	1.00	37.28	C
5	ATOM	926	O	PHE	113C	71.419	85.132	61.687	1.00	37.88	C
	ATOM	927	N	VAL	114C	71.510	84.453	63.836	1.00	38.19	C
	ATOM	928	CA	VAL	114C	72.526	83.442	63.605	1.00	39.37	C
	ATOM	929	CB	VAL	114C	73.907	83.860	64.150	1.00	41.84	C
	ATOM	930	CG1	VAL	114C	74.887	82.677	64.073	1.00	41.72	C
10	ATOM	931	CG2	VAL	114C	74.446	84.986	63.324	1.00	43.04	C
	ATOM	932	C	VAL	114C	72.052	82.222	64.358	1.00	39.00	C
	ATOM	933	O	VAL	114C	71.522	82.339	65.459	1.00	41.12	C
	ATOM	934	N	GLY	115C	72.233	81.053	63.766	1.00	39.39	C
	ATOM	935	CA	GLY	115C	71.796	79.852	64.434	1.00	39.84	C
15	ATOM	936	C	GLY	115C	72.882	78.840	64.721	1.00	40.57	C
	ATOM	937	O	GLY	115C	73.824	78.666	63.943	1.00	37.96	C
	ATOM	938	N	LYS	116C	72.751	78.187	65.872	1.00	40.96	C
	ATOM	939	CA	LYS	116C	73.668	77.135	66.276	1.00	44.38	C
	ATOM	940	CB	LYS	116C	74.617	77.598	67.379	1.00	45.69	C
20	ATOM	941	CG	LYS	116C	75.673	76.553	67.732	1.00	48.45	C
	ATOM	942	CD	LYS	116C	76.575	77.032	68.871	1.00	52.22	C
	ATOM	943	CE	LYS	116C	77.613	75.970	69.261	1.00	55.49	C
	ATOM	944	NZ	LYS	116C	78.521	76.443	70.386	1.00	56.81	C
	ATOM	945	C	LYS	116C	72.778	76.011	66.785	1.00	45.21	C
25	ATOM	946	O	LYS	116C	71.943	76.209	67.665	1.00	45.69	C
	ATOM	947	N	LYS	117C	72.932	74.848	66.251	1.00	46.45	C
	ATOM	948	CA	LYS	117C	72.088	73.678	66.563	1.00	49.63	C
	ATOM	949	CB	LYS	117C	72.326	72.634	65.502	1.00	47.60	C
	ATOM	950	CG	LYS	117C	71.263	71.571	65.445	1.00	45.85	C
30	ATOM	951	CD	LYS	117C	71.600	70.539	64.399	1.00	46.74	C
	ATOM	952	CE	LYS	117C	70.730	69.310	64.461	1.00	45.21	C
	ATOM	953	NZ	LYS	117C	71.272	68.214	63.655	1.00	46.48	C
	ATOM	954	C	LYS	117C	72.489	73.131	67.919	1.00	51.95	C
	ATOM	955	O	LYS	117C	73.545	73.411	68.485	1.00	52.94	C
35	ATOM	956	N	MET	118C	71.731	72.333	68.584	1.00	56.26	C
	ATOM	957	CA	MET	118C	72.342	71.902	69.847	1.00	60.51	C
	ATOM	958	CB	MET	118C	71.677	72.630	71.088	1.00	62.19	C
	ATOM	959	CG	MET	118C	70.325	72.221	71.518	1.00	64.16	C
	ATOM	960	SD	MET	118C	69.924	72.608	73.237	1.00	71.85	C
40	ATOM	961	CE	MET	118C	68.982	74.136	73.308	1.00	66.22	C
	ATOM	962	C	MET	118C	72.328	70.416	69.842	1.00	62.12	C
	ATOM	963	O	MET	118C	72.606	69.832	68.767	1.00	62.77	C
	ATOM	964	CB	LEU	204C	40.836	67.557	38.767	1.00	60.76	C
	ATOM	965	CG	LEU	204C	41.323	68.044	37.393	1.00	63.17	C
45	ATOM	966	CD1	LEU	204C	40.229	68.896	36.708	1.00	61.64	C
	ATOM	967	CD2	LEU	204C	42.599	68.864	37.569	1.00	63.24	C
	ATOM	968	C	LEU	204C	41.018	65.201	38.000	1.00	57.86	C
	ATOM	969	O	LEU	204C	42.064	64.787	38.517	1.00	59.03	C
	ATOM	970	N	LEU	204C	39.781	65.773	40.136	1.00	59.06	C
50	ATOM	971	CA	LEU	204C	40.125	66.200	38.742	1.00	59.27	C
	ATOM	972	N	SER	205C	40.605	64.814	36.792	1.00	54.67	C
	ATOM	973	CA	SER	205C	41.392	63.894	35.965	1.00	51.99	C
	ATOM	974	CB	SER	205C	40.471	62.985	35.143	1.00	51.92	C
	ATOM	975	OG	SER	205C	40.038	61.858	35.891	1.00	50.74	C
55	ATOM	976	C	SER	205C	42.276	64.725	35.020	1.00	49.72	C
	ATOM	977	O	SER	205C	41.762	65.509	34.221	1.00	48.73	C
	ATOM	978	N	LEU	206C	43.596	64.553	35.108	1.00	47.50	C
	ATOM	979	CA	LEU	206C	44.527	65.317	34.269	1.00	45.23	C
	ATOM	980	CB	LEU	206C	45.931	65.284	34.874	1.00	45.07	C

	ATOM	981	CG	LEU	206C	46.078	65.864	36.282	1.00	45.79	C
	ATOM	982	CD1	LEU	206C	47.448	65.546	36.828	1.00	44.15	C
	ATOM	983	CD2	LEU	206C	45.852	67.362	36.249	1.00	48.05	C
	ATOM	984	C	LEU	206C	44.587	64.796	32.839	1.00	44.04	C
5	ATOM	985	O	LEU	206C	44.467	63.596	32.603	1.00	42.90	C
	ATOM	986	N	PRO	207C	44.768	65.697	31.862	1.00	43.73	C
	ATOM	987	CD	PRO	207C	44.857	67.164	31.986	1.00	44.29	C
	ATOM	988	CA	PRO	207C	44.843	65.282	30.454	1.00	43.66	C
	ATOM	989	CB	PRO	207C	44.781	66.607	29.697	1.00	42.25	C
10	ATOM	990	CG	PRO	207C	45.466	67.564	30.644	1.00	43.03	C
	ATOM	991	C	PRO	207C	46.131	64.520	30.175	1.00	44.45	C
	ATOM	992	O	PRO	207C	47.112	64.661	30.915	1.00	42.69	C
	ATOM	993	N	GLU	208C	46.125	63.721	29.107	1.00	45.03	C
	ATOM	994	CA	GLU	208C	47.292	62.931	28.727	1.00	45.59	C
15	ATOM	995	CB	GLU	208C	46.920	61.900	27.644	1.00	49.91	C
	ATOM	996	CG	GLU	208C	48.074	60.931	27.314	1.00	58.35	C
	ATOM	997	CD	GLU	208C	47.682	59.794	26.360	1.00	63.73	C
	ATOM	998	OE1	GLU	208C	46.705	59.057	26.673	1.00	64.92	C
	ATOM	999	OE2	GLU	208C	48.361	59.630	25.304	1.00	64.51	C
20	ATOM	1000	C	GLU	208C	48.434	63.813	28.228	1.00	43.40	C
	ATOM	1001	O	GLU	208C	49.582	63.380	28.177	1.00	43.14	C
	ATOM	1002	N	SER	209C	48.114	65.048	27.858	1.00	41.64	C
	ATOM	1003	CA	SER	209C	49.125	65.981	27.364	1.00	42.98	C
	ATOM	1004	CB	SER	209C	49.221	65.942	25.834	1.00	41.86	C
25	ATOM	1005	OG	SER	209C	49.809	64.735	25.397	1.00	46.88	C
	ATOM	1006	C	SER	209C	48.808	67.398	27.763	1.00	41.34	C
	ATOM	1007	O	SER	209C	47.653	67.749	27.987	1.00	41.63	C
	ATOM	1008	N	TRP	210C	49.848	68.214	27.843	1.00	39.80	C
	ATOM	1009	CA	TRP	210C	49.675	69.611	28.176	1.00	39.50	C
30	ATOM	1010	CB	TRP	210C	49.536	69.806	29.684	1.00	39.54	C
	ATOM	1011	CG	TRP	210C	48.969	71.137	30.005	1.00	40.74	C
	ATOM	1012	CD2	TRP	210C	47.596	71.526	29.892	1.00	42.13	C
	ATOM	1013	CE2	TRP	210C	47.519	72.890	30.244	1.00	43.40	C
	ATOM	1014	CE3	TRP	210C	46.420	70.851	29.526	1.00	41.72	C
35	ATOM	1015	CD1	TRP	210C	49.650	72.247	30.408	1.00	41.01	C
	ATOM	1016	NE1	TRP	210C	48.788	73.306	30.555	1.00	43.32	C
	ATOM	1017	CZ2	TRP	210C	46.310	73.596	30.244	1.00	43.55	C
	ATOM	1018	CZ3	TRP	210C	45.221	71.551	29.526	1.00	41.80	C
	ATOM	1019	CH2	TRP	210C	45.175	72.910	29.883	1.00	42.60	C
40	ATOM	1020	C	TRP	210C	50.869	70.383	27.656	1.00	38.40	C
	ATOM	1021	O	TRP	210C	51.976	69.861	27.596	1.00	38.62	C
	ATOM	1022	N	ASP	211C	50.633	71.629	27.274	1.00	37.90	C
	ATOM	1023	CA	ASP	211C	51.681	72.470	26.741	1.00	39.42	C
	ATOM	1024	CB	ASP	211C	51.893	72.158	25.255	1.00	40.30	C
45	ATOM	1025	CG	ASP	211C	53.118	72.847	24.680	1.00	42.13	C
	ATOM	1026	OD1	ASP	211C	53.434	73.988	25.094	1.00	41.61	C
	ATOM	1027	OD2	ASP	211C	53.765	72.246	23.798	1.00	44.89	C
	ATOM	1028	C	ASP	211C	51.213	73.902	26.897	1.00	38.98	C
	ATOM	1029	O	ASP	211C	50.322	74.349	26.170	1.00	40.10	C
50	ATOM	1030	N	TRP	212C	51.808	74.627	27.839	1.00	37.88	C
	ATOM	1031	CA	TRP	212C	51.405	76.011	28.064	1.00	37.19	C
	ATOM	1032	CB	TRP	212C	52.024	76.537	29.356	1.00	34.20	C
	ATOM	1033	CG	TRP	212C	51.248	76.109	30.559	1.00	34.97	C
	ATOM	1034	CD2	TRP	212C	49.920	76.510	30.900	1.00	33.58	C
55	ATOM	1035	CE2	TRP	212C	49.575	75.843	32.098	1.00	32.11	C
	ATOM	1036	CE3	TRP	212C	48.983	77.370	30.309	1.00	33.15	C
	ATOM	1037	CD1	TRP	212C	51.647	75.239	31.535	1.00	34.50	C
	ATOM	1038	NE1	TRP	212C	50.649	75.075	32.460	1.00	31.73	C
	ATOM	1039	CZ2	TRP	212C	48.330	76.008	32.717	1.00	31.38	C

	ATOM	1040	CZ3	TRP	212C	47.742	77.536	30.925	1.00	33.67	C
	ATOM	1041	CH2	TRP	212C	47.431	76.855	32.119	1.00	31.45	C
	ATOM	1042	C	TRP	212C	51.710	76.952	26.908	1.00	36.01	C
	ATOM	1043	O	TRP	212C	51.429	78.146	26.977	1.00	35.38	C
5	ATOM	1044	N	ARG	213C	52.286	76.411	25.842	1.00	36.60	C
	ATOM	1045	CA	ARG	213C	52.600	77.218	24.673	1.00	39.10	C
	ATOM	1046	CB	ARG	213C	53.885	76.735	23.995	1.00	38.63	C
	ATOM	1047	CG	ARG	213C	55.158	76.975	24.791	1.00	40.76	C
	ATOM	1048	CD	ARG	213C	56.338	76.292	24.122	1.00	40.47	C
10	ATOM	1049	NE	ARG	213C	56.105	74.862	23.917	1.00	40.24	C
	ATOM	1050	CZ	ARG	213C	56.948	74.053	23.280	1.00	42.14	C
	ATOM	1051	NH1	ARG	213C	58.082	74.531	22.783	1.00	42.64	C
	ATOM	1052	NH2	ARG	213C	56.662	72.765	23.137	1.00	41.28	C
	ATOM	1053	C	ARG	213C	51.454	77.092	23.692	1.00	39.11	C
15	ATOM	1054	O	ARG	213C	51.390	77.820	22.709	1.00	41.12	C
	ATOM	1055	N	ASN	214C	50.544	76.165	23.970	1.00	39.70	C
	ATOM	1056	CA	ASN	214C	49.409	75.931	23.090	1.00	40.84	C
	ATOM	1057	CB	ASN	214C	49.849	75.045	21.917	1.00	41.89	C
	ATOM	1058	CG	ASN	214C	48.722	74.755	20.927	1.00	44.07	C
20	ATOM	1059	OD1	ASN	214C	48.972	74.201	19.863	1.00	48.05	C
	ATOM	1060	ND2	ASN	214C	47.485	75.117	21.273	1.00	42.55	C
	ATOM	1061	C	ASN	214C	48.233	75.299	23.827	1.00	40.29	C
	ATOM	1062	O	ASN	214C	48.038	74.083	23.818	1.00	39.26	C
	ATOM	1063	N	VAL	215C	47.458	76.149	24.477	1.00	41.48	C
25	ATOM	1064	CA	VAL	215C	46.287	75.704	25.200	1.00	42.51	C
	ATOM	1065	CB	VAL	215C	46.250	76.280	26.621	1.00	41.57	C
	ATOM	1066	CG1	VAL	215C	44.962	75.862	27.319	1.00	40.74	C
	ATOM	1067	CG2	VAL	215C	47.461	75.790	27.392	1.00	40.54	C
	ATOM	1068	C	VAL	215C	45.128	76.236	24.394	1.00	43.98	C
30	ATOM	1069	O	VAL	215C	44.788	77.420	24.467	1.00	42.91	C
	ATOM	1070	N	ARG	216C	44.548	75.350	23.594	1.00	47.02	C
	ATOM	1071	CA	ARG	216C	43.432	75.716	22.746	1.00	48.40	C
	ATOM	1072	CB	ARG	216C	42.237	76.105	23.627	1.00	50.63	C
	ATOM	1073	CG	ARG	216C	41.565	74.858	24.239	1.00	55.55	C
35	ATOM	1074	CD	ARG	216C	40.834	75.100	25.576	1.00	57.36	C
	ATOM	1075	NE	ARG	216C	39.772	76.100	25.491	1.00	59.32	C
	ATOM	1076	CZ	ARG	216C	38.532	75.926	25.956	1.00	61.88	C
	ATOM	1077	NH1	ARG	216C	38.182	74.783	26.542	1.00	61.15	C
	ATOM	1078	NH2	ARG	216C	37.628	76.904	25.844	1.00	62.48	C
40	ATOM	1079	C	ARG	216C	43.883	76.846	21.827	1.00	47.55	C
	ATOM	1080	O	ARG	216C	43.149	77.812	21.596	1.00	49.30	C
	ATOM	1081	N	GLY	217C	45.113	76.710	21.326	1.00	45.20	C
	ATOM	1082	CA	GLY	217C	45.692	77.683	20.411	1.00	42.32	C
	ATOM	1083	C	GLY	217C	46.426	78.868	21.013	1.00	42.42	C
45	ATOM	1084	O	GLY	217C	47.153	79.581	20.312	1.00	42.79	C
	ATOM	1085	N	ILE	218C	46.255	79.084	22.312	1.00	41.93	C
	ATOM	1086	CA	ILE	218C	46.893	80.208	22.986	1.00	40.79	C
	ATOM	1087	CB	ILE	218C	46.017	80.731	24.141	1.00	42.89	C
	ATOM	1088	CG2	ILE	218C	46.477	82.138	24.532	1.00	42.09	C
50	ATOM	1089	CG1	ILE	218C	44.531	80.699	23.748	1.00	44.62	C
	ATOM	1090	CD	ILE	218C	44.170	81.608	22.579	1.00	44.91	C
	ATOM	1091	C	ILE	218C	48.259	79.887	23.595	1.00	39.93	C
	ATOM	1092	O	ILE	218C	48.472	78.798	24.127	1.00	39.30	C
	ATOM	1093	N	ASN	219C	49.179	80.844	23.522	1.00	38.06	C
55	ATOM	1094	CA	ASN	219C	50.494	80.666	24.126	1.00	38.18	C
	ATOM	1095	CB	ASN	219C	51.609	81.111	23.180	1.00	37.26	C
	ATOM	1096	CG	ASN	219C	52.947	81.292	23.900	1.00	42.75	C
	ATOM	1097	OD1	ASN	219C	53.499	80.344	24.473	1.00	43.24	C
	ATOM	1098	ND2	ASN	219C	53.468	82.517	23.879	1.00	42.67	C

	ATOM	1099	C	ASN	219C	50.548	81.521	25.387	1.00	36.57	C
	ATOM	1100	O	ASN	219C	50.099	82.660	25.378	1.00	37.77	C
	ATOM	1101	N	PHE	220C	51.084	80.976	26.472	1.00	35.18	C
	ATOM	1102	CA	PHE	220C	51.190	81.741	27.708	1.00	34.39	C
5	ATOM	1103	CB	PHE	220C	50.376	81.099	28.835	1.00	34.19	C
	ATOM	1104	CG	PHE	220C	48.898	81.035	28.573	1.00	33.94	C
	ATOM	1105	CD1	PHE	220C	48.344	79.954	27.901	1.00	34.39	C
	ATOM	1106	CD2	PHE	220C	48.056	82.042	29.028	1.00	34.54	C
	ATOM	1107	CE1	PHE	220C	46.965	79.870	27.690	1.00	34.94	C
10	ATOM	1108	CE2	PHE	220C	46.677	81.967	28.821	1.00	36.85	C
	ATOM	1109	CZ	PHE	220C	46.134	80.873	28.149	1.00	34.41	C
	ATOM	1110	C	PHE	220C	52.638	81.844	28.171	1.00	35.50	C
	ATOM	1111	O	PHE	220C	52.906	82.393	29.236	1.00	38.07	C
	ATOM	1112	N	VAL	221C	53.569	81.318	27.384	1.00	34.77	C
15	ATOM	1113	CA	VAL	221C	54.974	81.353	27.776	1.00	34.31	C
	ATOM	1114	CB	VAL	221C	55.684	80.003	27.441	1.00	32.66	C
	ATOM	1115	CG1	VAL	221C	57.066	79.966	28.074	1.00	30.25	C
	ATOM	1116	CG2	VAL	221C	54.843	78.834	27.919	1.00	28.53	C
	ATOM	1117	C	VAL	221C	55.744	82.496	27.114	1.00	35.79	C
20	ATOM	1118	O	VAL	221C	55.625	82.727	25.910	1.00	37.58	C
	ATOM	1119	N	SER	222C	56.529	83.208	27.917	1.00	37.78	C
	ATOM	1120	CA	SER	222C	57.339	84.321	27.437	1.00	37.88	C
	ATOM	1121	CB	SER	222C	57.921	85.106	28.617	1.00	36.20	C
	ATOM	1122	OG	SER	222C	58.881	84.341	29.324	1.00	37.10	C
25	ATOM	1123	C	SER	222C	58.458	83.746	26.564	1.00	40.28	C
	ATOM	1124	O	SER	222C	58.747	82.550	26.626	1.00	41.12	C
	ATOM	1125	N	PRO	223C	59.107	84.594	25.748	1.00	41.46	C
	ATOM	1126	CD	PRO	223C	58.785	86.012	25.506	1.00	41.70	C
	ATOM	1127	CA	PRO	223C	60.189	84.152	24.856	1.00	42.55	C
30	ATOM	1128	CB	PRO	223C	60.465	85.398	24.003	1.00	41.62	C
	ATOM	1129	CG	PRO	223C	59.161	86.166	24.055	1.00	41.09	C
	ATOM	1130	C	PRO	223C	61.465	83.629	25.519	1.00	43.22	C
	ATOM	1131	O	PRO	223C	61.826	84.040	26.625	1.00	44.82	C
	ATOM	1132	N	VAL	224C	62.139	82.717	24.826	1.00	42.02	C
35	ATOM	1133	CA	VAL	224C	63.390	82.151	25.299	1.00	39.95	C
	ATOM	1134	CB	VAL	224C	63.898	81.058	24.337	1.00	40.39	C
	ATOM	1135	CG1	VAL	224C	65.270	80.570	24.777	1.00	39.21	C
	ATOM	1136	CG2	VAL	224C	62.912	79.899	24.293	1.00	38.24	C
	ATOM	1137	C	VAL	224C	64.423	83.275	25.364	1.00	40.52	C
40	ATOM	1138	O	VAL	224C	64.392	84.223	24.575	1.00	39.90	C
	ATOM	1139	N	ARG	225C	65.334	83.171	26.318	1.00	40.16	C
	ATOM	1140	CA	ARG	225C	66.378	84.167	26.485	1.00	39.12	C
	ATOM	1141	CB	ARG	225C	66.127	84.993	27.747	1.00	40.37	C
	ATOM	1142	CG	ARG	225C	64.821	85.756	27.723	1.00	38.54	C
45	ATOM	1143	CD	ARG	225C	64.795	86.792	28.831	1.00	40.13	C
	ATOM	1144	NE	ARG	225C	65.758	87.864	28.606	1.00	36.10	C
	ATOM	1145	CZ	ARG	225C	65.891	88.926	29.395	1.00	37.08	C
	ATOM	1146	NH1	ARG	225C	65.127	89.060	30.471	1.00	36.45	C
	ATOM	1147	NH2	ARG	225C	66.769	89.873	29.090	1.00	37.85	C
50	ATOM	1148	C	ARG	225C	67.709	83.442	26.587	1.00	39.00	C
	ATOM	1149	O	ARG	225C	67.745	82.212	26.558	1.00	36.32	C
	ATOM	1150	N	ASN	226C	68.798	84.197	26.705	1.00	39.77	C
	ATOM	1151	CA	ASN	226C	70.125	83.596	26.801	1.00	40.94	C
	ATOM	1152	CB	ASN	226C	70.917	83.862	25.518	1.00	41.93	C
55	ATOM	1153	CG	ASN	226C	72.050	82.887	25.327	1.00	43.59	C
	ATOM	1154	OD1	ASN	226C	72.772	82.559	26.270	1.00	44.46	C
	ATOM	1155	ND2	ASN	226C	72.219	82.414	24.099	1.00	43.95	C
	ATOM	1156	C	ASN	226C	70.887	84.168	27.994	1.00	40.33	C
	ATOM	1157	O	ASN	226C	71.175	85.364	28.031	1.00	40.17	C

	ATOM	1158	N	GLN	227C	71.217	83.306	28.956	1.00	39.53	C
	ATOM	1159	CA	GLN	227C	71.938	83.720	30.161	1.00	40.81	C
	ATOM	1160	CB	GLN	227C	71.853	82.612	31.232	1.00	39.19	C
	ATOM	1161	CG	GLN	227C	72.756	81.408	30.974	1.00	39.71	C
5	ATOM	1162	CD	GLN	227C	72.467	80.224	31.884	1.00	39.59	C
	ATOM	1163	OE1	GLN	227C	71.594	79.410	31.601	1.00	41.91	C
	ATOM	1164	NE2	GLN	227C	73.200	80.127	32.986	1.00	39.77	C
	ATOM	1165	C	GLN	227C	73.410	84.028	29.838	1.00	41.13	C
	ATOM	1166	O	GLN	227C	74.132	84.616	30.653	1.00	38.36	C
10	ATOM	1167	N	GLU	228C	73.836	83.629	28.640	1.00	41.73	C
	ATOM	1168	CA	GLU	228C	75.211	83.827	28.175	1.00	42.48	C
	ATOM	1169	CB	GLU	228C	75.487	85.318	27.938	1.00	42.68	C
	ATOM	1170	CG	GLU	228C	74.492	86.002	26.992	1.00	44.71	C
	ATOM	1171	CD	GLU	228C	74.535	85.472	25.546	1.00	48.49	C
15	ATOM	1172	OE1	GLU	228C	75.168	84.415	25.299	1.00	47.21	C
	ATOM	1173	OE2	GLU	228C	73.923	86.115	24.655	1.00	46.44	C
	ATOM	1174	C	GLU	228C	76.241	83.234	29.151	1.00	43.29	C
	ATOM	1175	O	GLU	228C	76.118	82.070	29.548	1.00	42.72	C
	ATOM	1176	N	SER	229C	77.241	84.026	29.541	1.00	43.13	C
20	ATOM	1177	CA	SER	229C	78.290	83.545	30.444	1.00	44.45	C
	ATOM	1178	CB	SER	229C	79.659	84.043	29.970	1.00	44.84	C
	ATOM	1179	OG	SER	229C	80.043	83.371	28.781	1.00	49.54	C
	ATOM	1180	C	SER	229C	78.097	83.931	31.901	1.00	43.87	C
	ATOM	1181	O	SER	229C	78.944	84.594	32.501	1.00	45.29	C
25	ATOM	1182	N	CYS	230C	76.988	83.497	32.474	1.00	42.76	C
	ATOM	1183	CA	CYS	230C	76.683	83.817	33.856	1.00	41.61	C
	ATOM	1184	C	CYS	230C	75.825	82.671	34.375	1.00	41.02	C
	ATOM	1185	O	CYS	230C	74.882	82.237	33.705	1.00	38.36	C
	ATOM	1186	CB	CYS	230C	75.944	85.164	33.889	1.00	42.39	C
30	ATOM	1187	SG	CYS	230C	75.228	85.751	35.462	1.00	45.00	C
	ATOM	1188	N	GLY	231C	76.187	82.148	35.542	1.00	40.31	C
	ATOM	1189	CA	GLY	231C	75.425	81.054	36.119	1.00	42.36	C
	ATOM	1190	C	GLY	231C	74.145	81.598	36.729	1.00	42.45	C
	ATOM	1191	O	GLY	231C	73.914	81.452	37.928	1.00	44.11	C
35	ATOM	1192	N	SER	232C	73.327	82.235	35.895	1.00	40.90	C
	ATOM	1193	CA	SER	232C	72.075	82.843	36.325	1.00	41.07	C
	ATOM	1194	CB	SER	232C	72.004	84.286	35.823	1.00	40.51	C
	ATOM	1195	OG	SER	232C	72.006	84.323	34.408	1.00	40.68	C
	ATOM	1196	C	SER	232C	70.849	82.068	35.844	1.00	41.72	C
40	ATOM	1197	O	SER	232C	69.755	82.618	35.737	1.00	43.25	C
	ATOM	1198	N	CYS	233C	71.038	80.789	35.551	1.00	42.19	C
	ATOM	1199	CA	CYS	233C	69.940	79.937	35.112	1.00	40.50	C
	ATOM	1200	CB	CYS	233C	70.448	78.500	35.006	1.00	42.98	C
	ATOM	1201	SG	CYS	233C	71.762	78.141	36.206	1.00	41.32	C
45	ATOM	1202	C	CYS	233C	68.778	80.029	36.115	1.00	39.65	C
	ATOM	1203	O	CYS	233C	67.628	80.229	35.723	1.00	37.33	C
	ATOM	1204	N	TYR	234C	69.085	79.899	37.407	1.00	37.54	C
	ATOM	1205	CA	TYR	234C	68.061	79.966	38.452	1.00	35.94	C
	ATOM	1206	CB	TYR	234C	68.688	79.973	39.847	1.00	34.56	C
50	ATOM	1207	CG	TYR	234C	69.502	81.215	40.131	1.00	35.07	C
	ATOM	1208	CD1	TYR	234C	70.821	81.326	39.683	1.00	33.43	C
	ATOM	1209	CE1	TYR	234C	71.571	82.477	39.921	1.00	34.92	C
	ATOM	1210	CD2	TYR	234C	68.950	82.289	40.825	1.00	32.02	C
	ATOM	1211	CE2	TYR	234C	69.688	83.447	41.067	1.00	34.50	C
55	ATOM	1212	CZ	TYR	234C	71.000	83.533	40.614	1.00	34.27	C
	ATOM	1213	OH	TYR	234C	71.740	84.664	40.857	1.00	32.28	C
	ATOM	1214	C	TYR	234C	67.222	81.224	38.311	1.00	35.98	C
	ATOM	1215	O	TYR	234C	66.043	81.246	38.661	1.00	36.04	C
	ATOM	1216	N	SER	235C	67.849	82.273	37.799	1.00	36.62	C

	ATOM	1217	CA	SER	235C	67.193	83.553	37.613	1.00	36.30	C
	ATOM	1218	CB	SER	235C	68.241	84.623	37.322	1.00	38.72	C
	ATOM	1219	OG	SER	235C	67.652	85.906	37.316	1.00	44.86	C
	ATOM	1220	C	SER	235C	66.165	83.512	36.484	1.00	37.25	C
5	ATOM	1221	O	SER	235C	65.051	84.008	36.641	1.00	38.20	C
	ATOM	1222	N	PHE	236C	66.530	82.928	35.344	1.00	36.37	C
	ATOM	1223	CA	PHE	236C	65.601	82.855	34.225	1.00	34.77	C
	ATOM	1224	CB	PHE	236C	66.326	82.465	32.938	1.00	33.54	C
	ATOM	1225	CG	PHE	236C	67.270	83.516	32.453	1.00	34.69	C
10	ATOM	1226	CD1	PHE	236C	68.549	83.617	32.984	1.00	32.82	C
	ATOM	1227	CD2	PHE	236C	66.855	84.455	31.514	1.00	34.50	C
	ATOM	1228	CE1	PHE	236C	69.401	84.639	32.589	1.00	34.84	C
	ATOM	1229	CE2	PHE	236C	67.696	85.483	31.111	1.00	34.89	C
	ATOM	1230	CZ	PHE	236C	68.971	85.578	31.649	1.00	36.26	C
15	ATOM	1231	C	PHE	236C	64.479	81.881	34.513	1.00	34.90	C
	ATOM	1232	O	PHE	236C	63.333	82.114	34.129	1.00	35.45	C
	ATOM	1233	N	ALA	237C	64.809	80.791	35.195	1.00	34.54	C
	ATOM	1234	CA	ALA	237C	63.808	79.800	35.549	1.00	35.52	C
	ATOM	1235	CB	ALA	237C	64.469	78.597	36.237	1.00	34.83	C
20	ATOM	1236	C	ALA	237C	62.778	80.453	36.478	1.00	34.13	C
	ATOM	1237	O	ALA	237C	61.576	80.283	36.290	1.00	35.56	C
	ATOM	1238	N	SER	238C	63.260	81.209	37.462	1.00	33.20	C
	ATOM	1239	CA	SER	238C	62.389	81.895	38.420	1.00	33.60	C
	ATOM	1240	CB	SER	238C	63.220	82.616	39.489	1.00	30.65	C
25	ATOM	1241	OG	SER	238C	63.776	81.712	40.421	1.00	31.67	C
	ATOM	1242	C	SER	238C	61.457	82.905	37.761	1.00	34.05	C
	ATOM	1243	O	SER	238C	60.244	82.833	37.917	1.00	35.64	C
	ATOM	1244	N	LEU	239C	62.031	83.852	37.028	1.00	35.05	C
	ATOM	1245	CA	LEU	239C	61.240	84.872	36.361	1.00	35.33	C
30	ATOM	1246	CB	LEU	239C	62.153	85.990	35.850	1.00	37.23	C
	ATOM	1247	CG	LEU	239C	63.072	86.611	36.909	1.00	38.11	C
	ATOM	1248	CD1	LEU	239C	63.913	87.700	36.257	1.00	39.42	C
	ATOM	1249	CD2	LEU	239C	62.250	87.187	38.061	1.00	38.19	C
	ATOM	1250	C	LEU	239C	60.414	84.287	35.220	1.00	35.06	C
35	ATOM	1251	O	LEU	239C	59.328	84.786	34.917	1.00	36.37	C
	ATOM	1252	N	GLY	240C	60.924	83.235	34.585	1.00	34.28	C
	ATOM	1253	CA	GLY	240C	60.177	82.598	33.513	1.00	33.64	C
	ATOM	1254	C	GLY	240C	58.859	82.049	34.046	1.00	33.90	C
	ATOM	1255	O	GLY	240C	57.848	82.040	33.347	1.00	33.47	C
40	ATOM	1256	N	MET	241C	58.865	81.589	35.293	1.00	33.16	C
	ATOM	1257	CA	MET	241C	57.652	81.055	35.902	1.00	33.25	C
	ATOM	1258	CB	MET	241C	57.983	80.284	37.188	1.00	32.59	C
	ATOM	1259	CG	MET	241C	56.796	80.071	38.122	1.00	31.55	C
	ATOM	1260	SD	MET	241C	57.010	78.687	39.256	1.00	32.58	C
45	ATOM	1261	CE	MET	241C	58.228	79.343	40.405	1.00	29.63	C
	ATOM	1262	C	MET	241C	56.680	82.189	36.205	1.00	32.66	C
	ATOM	1263	O	MET	241C	55.502	82.126	35.837	1.00	32.42	C
	ATOM	1264	N	LEU	242C	57.184	83.228	36.869	1.00	33.83	C
	ATOM	1265	CA	LEU	242C	56.364	84.382	37.216	1.00	33.05	C
50	ATOM	1266	CB	LEU	242C	57.199	85.426	37.964	1.00	31.47	C
	ATOM	1267	CG	LEU	242C	57.913	84.997	39.254	1.00	33.85	C
	ATOM	1268	CD1	LEU	242C	58.514	86.225	39.916	1.00	28.79	C
	ATOM	1269	CD2	LEU	242C	56.947	84.295	40.203	1.00	29.04	C
	ATOM	1270	C	LEU	242C	55.751	85.010	35.961	1.00	33.49	C
55	ATOM	1271	O	LEU	242C	54.588	85.404	35.960	1.00	36.52	C
	ATOM	1272	N	GLU	243C	56.535	85.093	34.892	1.00	33.68	C
	ATOM	1273	CA	GLU	243C	56.066	85.672	33.636	1.00	32.57	C
	ATOM	1274	CB	GLU	243C	57.223	85.731	32.619	1.00	33.66	C
	ATOM	1275	CG	GLU	243C	58.218	86.857	32.847	1.00	31.17	C

	ATOM	1276	CD	GLU	243C	59.563	86.597	32.175	1.00	31.74	C
	ATOM	1277	OE1	GLU	243C	59.691	85.587	31.455	1.00	34.62	C
	ATOM	1278	OE2	GLU	243C	60.495	87.402	32.373	1.00	30.05	C
	ATOM	1279	C	GLU	243C	54.895	84.897	33.036	1.00	30.97	C
5	ATOM	1280	O	GLU	243C	53.882	85.481	32.654	1.00	31.14	C
	ATOM	1281	N	ALA	244C	55.043	83.580	32.949	1.00	30.76	C
	ATOM	1282	CA	ALA	244C	54.007	82.723	32.388	1.00	30.99	C
	ATOM	1283	CB	ALA	244C	54.549	81.311	32.182	1.00	29.53	C
	ATOM	1284	C	ALA	244C	52.769	82.681	33.270	1.00	32.41	C
10	ATOM	1285	O	ALA	244C	51.646	82.774	32.778	1.00	32.44	C
	ATOM	1286	N	ARG	245C	52.973	82.538	34.575	1.00	33.23	C
	ATOM	1287	CA	ARG	245C	51.842	82.476	35.487	1.00	34.32	C
	ATOM	1288	CB	ARG	245C	52.308	82.066	36.889	1.00	35.13	C
	ATOM	1289	CG	ARG	245C	52.749	80.618	36.908	1.00	32.94	C
15	ATOM	1290	CD	ARG	245C	52.982	80.057	38.281	1.00	30.12	C
	ATOM	1291	NE	ARG	245C	53.059	78.604	38.194	1.00	31.14	C
	ATOM	1292	CZ	ARG	245C	52.976	77.777	39.230	1.00	30.36	C
	ATOM	1293	NH1	ARG	245C	52.816	78.263	40.453	1.00	30.84	C
	ATOM	1294	NH2	ARG	245C	53.034	76.469	39.036	1.00	25.87	C
20	ATOM	1295	C	ARG	245C	51.050	83.775	35.519	1.00	34.50	C
	ATOM	1296	O	ARG	245C	49.837	83.746	35.714	1.00	36.16	C
	ATOM	1297	N	ILE	246C	51.729	84.907	35.320	1.00	35.58	C
	ATOM	1298	CA	ILE	246C	51.046	86.202	35.289	1.00	36.15	C
	ATOM	1299	CB	ILE	246C	52.044	87.393	35.290	1.00	35.74	C
25	ATOM	1300	CG2	ILE	246C	51.335	88.661	34.841	1.00	36.50	C
	ATOM	1301	CG1	ILE	246C	52.625	87.596	36.693	1.00	34.53	C
	ATOM	1302	CD	ILE	246C	53.659	88.698	36.795	1.00	29.62	C
	ATOM	1303	C	ILE	246C	50.190	86.281	34.023	1.00	36.79	C
	ATOM	1304	O	ILE	246C	49.085	86.820	34.044	1.00	40.05	C
30	ATOM	1305	N	ARG	247C	50.695	85.735	32.922	1.00	36.03	C
	ATOM	1306	CA	ARG	247C	49.943	85.753	31.672	1.00	37.14	C
	ATOM	1307	CB	ARG	247C	50.847	85.327	30.508	1.00	34.99	C
	ATOM	1308	CG	ARG	247C	51.965	86.330	30.265	1.00	38.47	C
	ATOM	1309	CD	ARG	247C	52.910	85.935	29.159	1.00	39.66	C
35	ATOM	1310	NE	ARG	247C	52.179	85.571	27.947	1.00	44.64	C
	ATOM	1311	CZ	ARG	247C	52.677	85.649	26.713	1.00	45.25	C
	ATOM	1312	NH1	ARG	247C	53.921	86.093	26.510	1.00	41.13	C
	ATOM	1313	NH2	ARG	247C	51.928	85.260	25.684	1.00	44.13	C
	ATOM	1314	C	ARG	247C	48.702	84.868	31.754	1.00	37.30	C
40	ATOM	1315	O	ARG	247C	47.647	85.214	31.223	1.00	38.63	C
	ATOM	1316	N	ILE	248C	48.827	83.726	32.424	1.00	37.61	C
	ATOM	1317	CA	ILE	248C	47.704	82.809	32.582	1.00	34.20	C
	ATOM	1318	CB	ILE	248C	48.169	81.495	33.242	1.00	34.87	C
	ATOM	1319	CG2	ILE	248C	46.965	80.664	33.713	1.00	30.39	C
45	ATOM	1320	CG1	ILE	248C	49.035	80.709	32.256	1.00	33.54	C
	ATOM	1321	CD	ILE	248C	49.729	79.507	32.876	1.00	32.70	C
	ATOM	1322	C	ILE	248C	46.632	83.474	33.451	1.00	34.13	C
	ATOM	1323	O	ILE	248C	45.454	83.488	33.108	1.00	34.59	C
	ATOM	1324	N	LEU	249C	47.052	84.032	34.576	1.00	33.48	C
50	ATOM	1325	CA	LEU	249C	46.124	84.696	35.477	1.00	35.02	C
	ATOM	1326	CB	LEU	249C	46.877	85.265	36.681	1.00	32.81	C
	ATOM	1327	CG	LEU	249C	47.275	84.257	37.750	1.00	34.17	C
	ATOM	1328	CD1	LEU	249C	48.279	84.889	38.713	1.00	35.29	C
	ATOM	1329	CD2	LEU	249C	46.023	83.787	38.483	1.00	33.80	C
55	ATOM	1330	C	LEU	249C	45.340	85.821	34.815	1.00	34.98	C
	ATOM	1331	O	LEU	249C	44.205	86.085	35.192	1.00	33.73	C
	ATOM	1332	N	THR	250C	45.944	86.477	33.828	1.00	37.08	C
	ATOM	1333	CA	THR	250C	45.300	87.605	33.152	1.00	37.61	C
	ATOM	1334	CB	THR	250C	46.206	88.854	33.174	1.00	37.11	C

	ATOM	1335	OG1	THR	250C	47.399	88.591	32.422	1.00	36.65	C
	ATOM	1336	CG2	THR	250C	46.581	89.223	34.602	1.00	36.33	C
	ATOM	1337	C	THR	250C	44.875	87.387	31.702	1.00	38.26	C
	ATOM	1338	O	THR	250C	44.680	88.358	30.975	1.00	39.23	C
5	ATOM	1339	N	ASN	251C	44.718	86.139	31.279	1.00	38.20	C
	ATOM	1340	CA	ASN	251C	44.314	85.864	29.895	1.00	40.89	C
	ATOM	1341	CB	ASN	251C	42.845	86.269	29.673	1.00	41.99	C
	ATOM	1342	CG	ASN	251C	42.274	85.732	28.361	1.00	41.17	C
	ATOM	1343	OD1	ASN	251C	42.440	84.552	28.046	1.00	42.48	C
10	ATOM	1344	ND2	ASN	251C	41.586	86.588	27.607	1.00	39.33	C
	ATOM	1345	C	ASN	251C	45.207	86.616	28.898	1.00	41.52	C
	ATOM	1346	O	ASN	251C	44.770	86.957	27.804	1.00	41.68	C
	ATOM	1347	N	ASN	252C	46.450	86.873	29.308	1.00	42.04	C
	ATOM	1348	CA	ASN	252C	47.453	87.569	28.508	1.00	43.76	C
15	ATOM	1349	CB	ASN	252C	47.516	87.002	27.086	1.00	42.25	C
	ATOM	1350	CG	ASN	252C	48.316	85.719	27.006	1.00	43.43	C
	ATOM	1351	OD1	ASN	252C	49.442	85.638	27.507	1.00	42.52	C
	ATOM	1352	ND2	ASN	252C	47.746	84.713	26.364	1.00	43.01	C
	ATOM	1353	C	ASN	252C	47.344	89.083	28.422	1.00	43.90	C
20	ATOM	1354	O	ASN	252C	47.977	89.688	27.567	1.00	46.86	C
	ATOM	1355	N	SER	253C	46.561	89.702	29.294	1.00	43.67	C
	ATOM	1356	CA	SER	253C	46.426	91.155	29.273	1.00	43.23	C
	ATOM	1357	CB	SER	253C	45.296	91.596	30.197	1.00	43.01	C
	ATOM	1358	OG	SER	253C	45.611	91.280	31.537	1.00	48.46	C
25	ATOM	1359	C	SER	253C	47.732	91.723	29.791	1.00	42.75	C
	ATOM	1360	O	SER	253C	48.076	92.882	29.537	1.00	43.07	C
	ATOM	1361	N	GLN	254C	48.442	90.901	30.553	1.00	41.24	C
	ATOM	1362	CA	GLN	254C	49.719	91.298	31.116	1.00	40.47	C
	ATOM	1363	CB	GLN	254C	49.639	91.336	32.647	1.00	39.86	C
30	ATOM	1364	CG	GLN	254C	48.865	92.519	33.223	1.00	39.59	C
	ATOM	1365	CD	GLN	254C	48.868	92.547	34.761	1.00	40.96	C
	ATOM	1366	OE1	GLN	254C	49.901	92.322	35.399	1.00	38.99	C
	ATOM	1367	NE2	GLN	254C	47.711	92.842	35.354	1.00	39.49	C
	ATOM	1368	C	GLN	254C	50.791	90.306	30.662	1.00	40.23	C
35	ATOM	1369	O	GLN	254C	50.729	89.118	30.979	1.00	36.25	C
	ATOM	1370	N	THR	255C	51.761	90.813	29.906	1.00	40.44	C
	ATOM	1371	CA	THR	255C	52.866	90.011	29.395	1.00	39.61	C
	ATOM	1372	CB	THR	255C	52.784	89.872	27.868	1.00	38.79	C
	ATOM	1373	OG1	THR	255C	52.772	91.177	27.274	1.00	41.88	C
40	ATOM	1374	CG2	THR	255C	51.518	89.146	27.474	1.00	38.07	C
	ATOM	1375	C	THR	255C	54.190	90.676	29.761	1.00	39.15	C
	ATOM	1376	O	THR	255C	55.025	90.956	28.897	1.00	39.23	C
	ATOM	1377	N	PRO	256C	54.400	90.942	31.058	1.00	39.56	C
	ATOM	1378	CD	PRO	256C	53.616	90.550	32.243	1.00	39.44	C
45	ATOM	1379	CA	PRO	256C	55.652	91.579	31.462	1.00	39.37	C
	ATOM	1380	CB	PRO	256C	55.412	91.884	32.937	1.00	39.42	C
	ATOM	1381	CG	PRO	256C	54.638	90.688	33.371	1.00	39.85	C
	ATOM	1382	C	PRO	256C	56.850	90.655	31.260	1.00	38.85	C
	ATOM	1383	O	PRO	256C	56.718	89.427	31.272	1.00	36.74	C
50	ATOM	1384	N	ILE	257C	58.012	91.268	31.054	1.00	37.73	C
	ATOM	1385	CA	ILE	257C	59.270	90.557	30.888	1.00	35.82	C
	ATOM	1386	CB	ILE	257C	59.962	90.953	29.555	1.00	35.81	C
	ATOM	1387	CG2	ILE	257C	61.350	90.339	29.474	1.00	33.85	C
	ATOM	1388	CG1	ILE	257C	59.107	90.501	28.371	1.00	31.78	C
55	ATOM	1389	CD	ILE	257C	58.935	88.999	28.267	1.00	32.99	C
	ATOM	1390	C	ILE	257C	60.056	91.073	32.085	1.00	35.79	C
	ATOM	1391	O	ILE	257C	60.297	92.277	32.196	1.00	38.00	C
	ATOM	1392	N	LEU	258C	60.429	90.175	32.992	1.00	36.82	C
	ATOM	1393	CA	LEU	258C	61.133	90.576	34.211	1.00	38.72	C

	ATOM	1394	CB	LEU	258C	60.706	89.660	35.368	1.00	37.33	C
	ATOM	1395	CG	LEU	258C	59.177	89.558	35.537	1.00	39.49	C
	ATOM	1396	CD1	LEU	258C	58.829	88.653	36.717	1.00	37.05	C
	ATOM	1397	CD2	LEU	258C	58.579	90.944	35.739	1.00	35.75	C
5	ATOM	1398	C	LEU	258C	62.659	90.641	34.094	1.00	38.49	C
	ATOM	1399	O	LEU	258C	63.238	90.119	33.144	1.00	39.93	C
	ATOM	1400	N	SER	259C	63.299	91.281	35.071	1.00	37.65	C
	ATOM	1401	CA	SER	259C	64.741	91.473	35.056	1.00	37.40	C
	ATOM	1402	CB	SER	259C	65.073	92.887	35.533	1.00	38.21	C
10	ATOM	1403	OG	SER	259C	66.422	92.970	35.974	1.00	39.72	C
	ATOM	1404	C	SER	259C	65.638	90.504	35.808	1.00	38.11	C
	ATOM	1405	O	SER	259C	65.749	90.569	37.038	1.00	38.13	C
	ATOM	1406	N	PRO	260C	66.309	89.595	35.075	1.00	37.88	C
	ATOM	1407	CD	PRO	260C	66.140	89.258	33.652	1.00	37.21	C
15	ATOM	1408	CA	PRO	260C	67.204	88.638	35.731	1.00	37.33	C
	ATOM	1409	CB	PRO	260C	67.555	87.661	34.613	1.00	36.12	C
	ATOM	1410	CG	PRO	260C	67.396	88.488	33.373	1.00	39.26	C
	ATOM	1411	C	PRO	260C	68.431	89.351	36.284	1.00	36.98	C
	ATOM	1412	O	PRO	260C	69.032	88.900	37.258	1.00	36.95	C
20	ATOM	1413	N	GLN	261C	68.787	90.478	35.670	1.00	37.04	C
	ATOM	1414	CA	GLN	261C	69.950	91.243	36.102	1.00	36.28	C
	ATOM	1415	CB	GLN	261C	70.250	92.369	35.107	1.00	37.22	C
	ATOM	1416	CG	GLN	261C	71.572	93.079	35.360	1.00	35.67	C
	ATOM	1417	CD	GLN	261C	72.760	92.128	35.277	1.00	38.33	C
25	ATOM	1418	OE1	GLN	261C	72.972	91.475	34.254	1.00	37.23	C
	ATOM	1419	NE2	GLN	261C	73.535	92.042	36.358	1.00	36.15	C
	ATOM	1420	C	GLN	261C	69.737	91.830	37.494	1.00	38.10	C
	ATOM	1421	O	GLN	261C	70.669	91.894	38.300	1.00	39.34	C
	ATOM	1422	N	GLU	262C	68.510	92.267	37.769	1.00	38.49	C
30	ATOM	1423	CA	GLU	262C	68.169	92.841	39.065	1.00	37.34	C
	ATOM	1424	CB	GLU	262C	66.713	93.323	39.040	1.00	39.14	C
	ATOM	1425	CG	GLU	262C	66.231	94.096	40.274	1.00	40.48	C
	ATOM	1426	CD	GLU	262C	65.989	93.213	41.496	1.00	39.27	C
	ATOM	1427	OE1	GLU	262C	65.528	92.062	41.339	1.00	40.06	C
35	ATOM	1428	OE2	GLU	262C	66.240	93.682	42.619	1.00	41.49	C
	ATOM	1429	C	GLU	262C	68.390	91.764	40.130	1.00	36.93	C
	ATOM	1430	O	GLU	262C	68.884	92.047	41.222	1.00	38.01	C
	ATOM	1431	N	VAL	263C	68.054	90.523	39.790	1.00	36.20	C
	ATOM	1432	CA	VAL	263C	68.228	89.389	40.707	1.00	36.69	C
40	ATOM	1433	CB	VAL	263C	67.513	88.113	40.170	1.00	33.82	C
	ATOM	1434	CG1	VAL	263C	67.832	86.925	41.041	1.00	32.74	C
	ATOM	1435	CG2	VAL	263C	66.020	88.339	40.124	1.00	31.82	C
	ATOM	1436	C	VAL	263C	69.709	89.074	40.905	1.00	37.84	C
	ATOM	1437	O	VAL	263C	70.168	88.849	42.031	1.00	40.14	C
45	ATOM	1438	N	VAL	264C	70.456	89.062	39.804	1.00	38.18	C
	ATOM	1439	CA	VAL	264C	71.883	88.777	39.844	1.00	36.98	C
	ATOM	1440	CB	VAL	264C	72.465	88.697	38.409	1.00	36.34	C
	ATOM	1441	CG1	VAL	264C	73.989	88.752	38.445	1.00	35.48	C
	ATOM	1442	CG2	VAL	264C	72.008	87.401	37.745	1.00	34.31	C
50	ATOM	1443	C	VAL	264C	72.659	89.819	40.642	1.00	37.72	C
	ATOM	1444	O	VAL	264C	73.491	89.477	41.479	1.00	38.02	C
	ATOM	1445	N	SER	265C	72.369	91.090	40.398	1.00	38.76	C
	ATOM	1446	CA	SER	265C	73.078	92.170	41.072	1.00	41.55	C
	ATOM	1447	CB	SER	265C	73.109	93.413	40.174	1.00	41.67	C
55	ATOM	1448	OG	SER	265C	73.715	93.137	38.918	1.00	44.06	C
	ATOM	1449	C	SER	265C	72.557	92.586	42.445	1.00	43.21	C
	ATOM	1450	O	SER	265C	73.336	93.005	43.299	1.00	44.21	C
	ATOM	1451	N	CYS	266C	71.254	92.465	42.673	1.00	44.13	C
	ATOM	1452	CA	CYS	266C	70.688	92.918	43.937	1.00	44.73	C

	ATOM	1453	C	CYS	266C	70.228	91.910	44.987	1.00	44.19	C
	ATOM	1454	O	CYS	266C	70.185	92.241	46.176	1.00	44.18	C
	ATOM	1455	CB	CYS	266C	69.520	93.841	43.639	1.00	46.49	C
	ATOM	1456	SG	CYS	266C	69.876	95.144	42.420	1.00	51.76	C
5	ATOM	1457	N	SER	267C	69.866	90.699	44.576	1.00	41.96	C
	ATOM	1458	CA	SER	267C	69.381	89.734	45.553	1.00	40.12	C
	ATOM	1459	CB	SER	267C	68.648	88.593	44.861	1.00	39.92	C
	ATOM	1460	OG	SER	267C	68.147	87.696	45.832	1.00	40.81	C
	ATOM	1461	C	SER	267C	70.413	89.141	46.502	1.00	38.99	C
10	ATOM	1462	O	SER	267C	71.443	88.630	46.077	1.00	39.65	C
	ATOM	1463	N	PRO	268C	70.138	89.208	47.816	1.00	38.44	C
	ATOM	1464	CD	PRO	268C	69.115	90.087	48.402	1.00	37.65	C
	ATOM	1465	CA	PRO	268C	71.019	88.676	48.864	1.00	35.89	C
	ATOM	1466	CB	PRO	268C	70.621	89.474	50.105	1.00	36.08	C
15	ATOM	1467	CG	PRO	268C	69.847	90.643	49.581	1.00	37.44	C
	ATOM	1468	C	PRO	268C	70.744	87.187	49.073	1.00	35.37	C
	ATOM	1469	O	PRO	268C	71.481	86.501	49.781	1.00	36.17	C
	ATOM	1470	N	TYR	269C	69.671	86.703	48.456	1.00	35.01	C
	ATOM	1471	CA	TYR	269C	69.258	85.306	48.582	1.00	35.51	C
20	ATOM	1472	CB	TYR	269C	67.724	85.210	48.502	1.00	34.09	C
	ATOM	1473	CG	TYR	269C	66.987	85.981	49.584	1.00	31.19	C
	ATOM	1474	CD1	TYR	269C	65.654	86.367	49.406	1.00	33.14	C
	ATOM	1475	CE1	TYR	269C	64.964	87.064	50.399	1.00	30.62	C
	ATOM	1476	CD2	TYR	269C	67.614	86.314	50.790	1.00	33.10	C
25	ATOM	1477	CE2	TYR	269C	66.939	87.010	51.789	1.00	31.98	C
	ATOM	1478	CZ	TYR	269C	65.614	87.382	51.587	1.00	35.23	C
	ATOM	1479	OH	TYR	269C	64.953	88.084	52.566	1.00	35.61	C
	ATOM	1480	C	TYR	269C	69.897	84.400	47.529	1.00	37.76	C
	ATOM	1481	O	TYR	269C	69.661	83.194	47.514	1.00	36.54	C
30	ATOM	1482	N	ALA	270C	70.707	84.986	46.651	1.00	39.38	C
	ATOM	1483	CA	ALA	270C	71.392	84.224	45.612	1.00	41.06	C
	ATOM	1484	CB	ALA	270C	70.691	84.418	44.262	1.00	36.90	C
	ATOM	1485	C	ALA	270C	72.850	84.690	45.537	1.00	42.23	C
	ATOM	1486	O	ALA	270C	73.232	85.654	46.203	1.00	42.39	C
35	ATOM	1487	N	GLN	271C	73.663	84.004	44.738	1.00	42.82	C
	ATOM	1488	CA	GLN	271C	75.075	84.372	44.597	1.00	42.42	C
	ATOM	1489	CB	GLN	271C	75.974	83.157	44.863	1.00	41.11	C
	ATOM	1490	CG	GLN	271C	76.025	82.704	46.314	1.00	41.38	C
	ATOM	1491	CD	GLN	271C	74.696	82.175	46.821	1.00	43.54	C
40	ATOM	1492	OE1	GLN	271C	74.111	81.267	46.233	1.00	43.51	C
	ATOM	1493	NE2	GLN	271C	74.214	82.739	47.928	1.00	45.29	C
	ATOM	1494	C	GLN	271C	75.420	84.954	43.227	1.00	41.04	C
	ATOM	1495	O	GLN	271C	76.406	84.553	42.630	1.00	42.09	C
	ATOM	1496	N	GLY	272C	74.613	85.891	42.738	1.00	41.01	C
45	ATOM	1497	CA	GLY	272C	74.878	86.509	41.447	1.00	41.41	C
	ATOM	1498	C	GLY	272C	75.090	85.528	40.304	1.00	42.42	C
	ATOM	1499	O	GLY	272C	74.276	84.638	40.093	1.00	44.08	C
	ATOM	1500	N	CYS	273C	76.181	85.687	39.557	1.00	42.70	C
	ATOM	1501	CA	CYS	273C	76.474	84.790	38.437	1.00	42.29	C
50	ATOM	1502	C	CYS	273C	77.032	83.473	38.930	1.00	40.99	C
	ATOM	1503	O	CYS	273C	77.326	82.571	38.143	1.00	38.45	C
	ATOM	1504	CB	CYS	273C	77.472	85.424	37.462	1.00	42.74	C
	ATOM	1505	SG	CYS	273C	76.736	86.716	36.415	1.00	44.12	C
	ATOM	1506	N	ASP	274C	77.158	83.353	40.243	1.00	39.75	C
55	ATOM	1507	CA	ASP	274C	77.687	82.138	40.810	1.00	40.44	C
	ATOM	1508	CB	ASP	274C	78.684	82.493	41.909	1.00	45.10	C
	ATOM	1509	CG	ASP	274C	80.018	82.937	41.341	1.00	47.73	C
	ATOM	1510	OD1	ASP	274C	80.701	82.082	40.739	1.00	49.54	C
	ATOM	1511	OD2	ASP	274C	80.375	84.131	41.472	1.00	50.45	C

	ATOM	1512	C	ASP	274C	76.634	81.155	41.305	1.00	40.95	C
	ATOM	1513	O	ASP	274C	76.915	80.301	42.151	1.00	39.38	C
	ATOM	1514	N	GLY	275C	75.420	81.272	40.771	1.00	40.80	C
	ATOM	1515	CA	GLY	275C	74.371	80.343	41.151	1.00	42.71	C
5	ATOM	1516	C	GLY	275C	73.289	80.805	42.112	1.00	43.28	C
	ATOM	1517	O	GLY	275C	73.416	81.822	42.808	1.00	43.35	C
	ATOM	1518	N	GLY	276C	72.212	80.026	42.144	1.00	42.77	C
	ATOM	1519	CA	GLY	276C	71.083	80.328	43.003	1.00	40.83	C
	ATOM	1520	C	GLY	276C	69.981	79.292	42.877	1.00	40.58	C
10	ATOM	1521	O	GLY	276C	70.090	78.309	42.120	1.00	37.62	C
	ATOM	1522	N	PHE	277C	68.897	79.522	43.613	1.00	39.12	C
	ATOM	1523	CA	PHE	277C	67.776	78.594	43.606	1.00	37.84	C
	ATOM	1524	CB	PHE	277C	67.873	77.694	44.838	1.00	34.99	C
	ATOM	1525	CG	PHE	277C	69.098	76.832	44.836	1.00	37.51	C
15	ATOM	1526	CD1	PHE	277C	69.095	75.591	44.196	1.00	37.58	C
	ATOM	1527	CD2	PHE	277C	70.295	77.302	45.384	1.00	37.52	C
	ATOM	1528	CE1	PHE	277C	70.269	74.836	44.099	1.00	37.51	C
	ATOM	1529	CE2	PHE	277C	71.469	76.558	45.290	1.00	34.66	C
	ATOM	1530	CZ	PHE	277C	71.458	75.327	44.648	1.00	37.24	C
20	ATOM	1531	C	PHE	277C	66.411	79.269	43.534	1.00	36.81	C
	ATOM	1532	O	PHE	277C	66.117	80.206	44.279	1.00	35.89	C
	ATOM	1533	N	PRO	278C	65.562	78.793	42.617	1.00	34.80	C
	ATOM	1534	CD	PRO	278C	65.851	77.716	41.654	1.00	32.65	C
	ATOM	1535	CA	PRO	278C	64.211	79.320	42.417	1.00	33.98	C
25	ATOM	1536	CB	PRO	278C	63.566	78.255	41.544	1.00	32.52	C
	ATOM	1537	CG	PRO	278C	64.717	77.853	40.662	1.00	34.07	C
	ATOM	1538	C	PRO	278C	63.440	79.565	43.717	1.00	33.61	C
	ATOM	1539	O	PRO	278C	62.846	80.632	43.894	1.00	34.87	C
	ATOM	1540	N	TYR	279C	63.456	78.596	44.627	1.00	32.40	C
30	ATOM	1541	CA	TYR	279C	62.727	78.749	45.884	1.00	33.33	C
	ATOM	1542	CB	TYR	279C	63.067	77.622	46.862	1.00	31.83	C
	ATOM	1543	CG	TYR	279C	62.255	77.662	48.144	1.00	29.53	C
	ATOM	1544	CD1	TYR	279C	61.080	76.928	48.265	1.00	30.23	C
	ATOM	1545	CE1	TYR	279C	60.338	76.936	49.450	1.00	29.19	C
35	ATOM	1546	CD2	TYR	279C	62.671	78.417	49.242	1.00	28.64	C
	ATOM	1547	CE2	TYR	279C	61.937	78.432	50.435	1.00	28.57	C
	ATOM	1548	CZ	TYR	279C	60.772	77.685	50.527	1.00	31.12	C
	ATOM	1549	OH	TYR	279C	60.039	77.666	51.689	1.00	32.16	C
	ATOM	1550	C	TYR	279C	63.033	80.084	46.553	1.00	33.38	C
40	ATOM	1551	O	TYR	279C	62.143	80.720	47.115	1.00	32.71	C
	ATOM	1552	N	LEU	280C	64.296	80.497	46.498	1.00	33.56	C
	ATOM	1553	CA	LEU	280C	64.715	81.752	47.110	1.00	32.72	C
	ATOM	1554	CB	LEU	280C	66.173	81.652	47.569	1.00	30.95	C
	ATOM	1555	CG	LEU	280C	66.402	80.761	48.796	1.00	33.52	C
45	ATOM	1556	CD1	LEU	280C	67.884	80.465	48.955	1.00	30.68	C
	ATOM	1557	CD2	LEU	280C	65.842	81.431	50.042	1.00	27.93	C
	ATOM	1558	C	LEU	280C	64.545	82.968	46.212	1.00	32.93	C
	ATOM	1559	O	LEU	280C	64.595	84.096	46.688	1.00	36.67	C
	ATOM	1560	N	ILE	281C	64.342	82.758	44.918	1.00	33.23	C
50	ATOM	1561	CA	ILE	281C	64.170	83.894	44.027	1.00	33.80	C
	ATOM	1562	CB	ILE	281C	65.098	83.796	42.798	1.00	33.20	C
	ATOM	1563	CG2	ILE	281C	64.796	84.921	41.816	1.00	30.45	C
	ATOM	1564	CG1	ILE	281C	66.557	83.888	43.262	1.00	33.58	C
	ATOM	1565	CD	ILE	281C	66.856	85.121	44.129	1.00	31.12	C
55	ATOM	1566	C	ILE	281C	62.726	84.067	43.582	1.00	35.77	C
	ATOM	1567	O	ILE	281C	62.103	85.087	43.884	1.00	37.82	C
	ATOM	1568	N	ALA	282C	62.192	83.084	42.865	1.00	35.65	C
	ATOM	1569	CA	ALA	282C	60.803	83.150	42.416	1.00	34.08	C
	ATOM	1570	CB	ALA	282C	60.468	81.939	41.562	1.00	31.21	C

	ATOM	1571	C	ALA	282C	59.901	83.184	43.651	1.00	32.63	C
	ATOM	1572	O	ALA	282C	58.811	83.733	43.619	1.00	29.37	C
	ATOM	1573	N	GLY	283C	60.384	82.592	44.739	1.00	32.26	C
	ATOM	1574	CA	GLY	283C	59.620	82.555	45.967	1.00	31.03	C
5	ATOM	1575	C	GLY	283C	59.967	83.655	46.944	1.00	32.97	C
	ATOM	1576	O	GLY	283C	59.420	84.753	46.858	1.00	35.49	C
	ATOM	1577	N	LYS	284C	60.902	83.370	47.850	1.00	33.10	C
	ATOM	1578	CA	LYS	284C	61.306	84.312	48.892	1.00	33.40	C
	ATOM	1579	CB	LYS	284C	62.422	83.714	49.747	1.00	33.97	C
10	ATOM	1580	CG	LYS	284C	62.594	84.442	51.059	1.00	34.36	C
	ATOM	1581	CD	LYS	284C	63.520	83.703	52.003	1.00	34.63	C
	ATOM	1582	CE	LYS	284C	63.476	84.355	53.362	1.00	33.62	C
	ATOM	1583	NZ	LYS	284C	62.072	84.392	53.850	1.00	30.96	C
	ATOM	1584	C	LYS	284C	61.715	85.711	48.462	1.00	35.20	C
15	ATOM	1585	O	LYS	284C	61.247	86.697	49.034	1.00	35.09	C
	ATOM	1586	N	TYR	285C	62.592	85.817	47.472	1.00	36.42	C
	ATOM	1587	CA	TYR	285C	63.013	87.140	47.033	1.00	34.23	C
	ATOM	1588	CB	TYR	285C	64.167	87.051	46.035	1.00	36.53	C
	ATOM	1589	CG	TYR	285C	64.725	88.412	45.691	1.00	35.00	C
20	ATOM	1590	CD1	TYR	285C	64.409	89.038	44.490	1.00	34.50	C
	ATOM	1591	CE1	TYR	285C	64.869	90.322	44.205	1.00	34.12	C
	ATOM	1592	CD2	TYR	285C	65.519	89.100	46.600	1.00	35.00	C
	ATOM	1593	CE2	TYR	285C	65.985	90.383	46.324	1.00	36.73	C
	ATOM	1594	CZ	TYR	285C	65.655	90.987	45.127	1.00	35.02	C
25	ATOM	1595	OH	TYR	285C	66.113	92.257	44.862	1.00	37.66	C
	ATOM	1596	C	TYR	285C	61.861	87.921	46.417	1.00	32.05	C
	ATOM	1597	O	TYR	285C	61.707	89.111	46.674	1.00	32.50	C
	ATOM	1598	N	ALA	286C	61.051	87.256	45.605	1.00	30.67	C
	ATOM	1599	CA	ALA	286C	59.919	87.922	44.982	1.00	30.25	C
30	ATOM	1600	CB	ALA	286C	59.250	86.996	43.973	1.00	30.48	C
	ATOM	1601	C	ALA	286C	58.914	88.372	46.044	1.00	30.08	C
	ATOM	1602	O	ALA	286C	58.333	89.441	45.936	1.00	31.60	C
	ATOM	1603	N	GLN	287C	58.722	87.566	47.082	1.00	29.96	C
	ATOM	1604	CA	GLN	287C	57.786	87.922	48.133	1.00	30.93	C
35	ATOM	1605	CB	GLN	287C	57.488	86.719	49.037	1.00	31.52	C
	ATOM	1606	CG	GLN	287C	56.447	87.026	50.133	1.00	28.69	C
	ATOM	1607	CD	GLN	287C	55.944	85.784	50.858	1.00	27.66	C
	ATOM	1608	OE1	GLN	287C	56.554	85.307	51.807	1.00	29.41	C
	ATOM	1609	NE2	GLN	287C	54.825	85.255	50.401	1.00	25.90	C
40	ATOM	1610	C	GLN	287C	58.263	89.076	49.004	1.00	32.88	C
	ATOM	1611	O	GLN	287C	57.503	90.002	49.285	1.00	33.05	C
	ATOM	1612	N	ASP	288C	59.520	89.017	49.429	1.00	34.78	C
	ATOM	1613	CA	ASP	288C	60.083	90.037	50.308	1.00	35.27	C
	ATOM	1614	CB	ASP	288C	61.331	89.499	51.021	1.00	35.40	C
45	ATOM	1615	CG	ASP	288C	61.043	88.284	51.880	1.00	36.07	C
	ATOM	1616	OD1	ASP	288C	59.860	87.894	52.013	1.00	34.22	C
	ATOM	1617	OD2	ASP	288C	62.015	87.719	52.428	1.00	38.37	C
	ATOM	1618	C	ASP	288C	60.440	91.360	49.645	1.00	36.84	C
	ATOM	1619	O	ASP	288C	60.016	92.425	50.107	1.00	38.18	C
50	ATOM	1620	N	PHE	289C	61.219	91.302	48.570	1.00	35.88	C
	ATOM	1621	CA	PHE	289C	61.636	92.523	47.901	1.00	35.38	C
	ATOM	1622	CB	PHE	289C	63.157	92.535	47.774	1.00	36.47	C
	ATOM	1623	CG	PHE	289C	63.854	92.452	49.092	1.00	34.50	C
	ATOM	1624	CD1	PHE	289C	64.408	91.258	49.521	1.00	30.47	C
55	ATOM	1625	CD2	PHE	289C	63.880	93.561	49.943	1.00	32.79	C
	ATOM	1626	CE1	PHE	289C	64.974	91.162	50.780	1.00	32.45	C
	ATOM	1627	CE2	PHE	289C	64.442	93.476	51.204	1.00	30.88	C
	ATOM	1628	CZ	PHE	289C	64.990	92.276	51.628	1.00	32.10	C
	ATOM	1629	C	PHE	289C	60.998	92.759	46.551	1.00	36.83	C

	ATOM	1630	O	PHE	289C	60.957	93.895	46.072	1.00	36.79	C
	ATOM	1631	N	GLY	290C	60.500	91.689	45.940	1.00	36.35	C
	ATOM	1632	CA	GLY	290C	59.863	91.825	44.646	1.00	35.38	C
	ATOM	1633	C	GLY	290C	60.861	91.924	43.513	1.00	35.17	C
5	ATOM	1634	O	GLY	290C	62.039	92.204	43.722	1.00	33.61	C
	ATOM	1635	N	VAL	291C	60.385	91.681	42.302	1.00	34.90	C
	ATOM	1636	CA	VAL	291C	61.237	91.747	41.127	1.00	35.89	C
	ATOM	1637	CB	VAL	291C	61.288	90.372	40.393	1.00	33.89	C
	ATOM	1638	CG1	VAL	291C	61.941	89.336	41.294	1.00	32.52	C
10	ATOM	1639	CG2	VAL	291C	59.898	89.926	39.999	1.00	28.67	C
	ATOM	1640	C	VAL	291C	60.724	92.842	40.191	1.00	36.94	C
	ATOM	1641	O	VAL	291C	59.546	93.202	40.230	1.00	38.13	C
	ATOM	1642	N	VAL	292C	61.608	93.372	39.357	1.00	38.19	C
	ATOM	1643	CA	VAL	292C	61.243	94.450	38.443	1.00	40.35	C
15	ATOM	1644	CB	VAL	292C	62.190	95.644	38.638	1.00	38.97	C
	ATOM	1645	CG1	VAL	292C	62.201	96.070	40.108	1.00	39.22	C
	ATOM	1646	CG2	VAL	292C	63.581	95.256	38.215	1.00	39.42	C
	ATOM	1647	C	VAL	292C	61.291	94.015	36.981	1.00	40.36	C
	ATOM	1648	O	VAL	292C	61.803	92.945	36.655	1.00	41.44	C
20	ATOM	1649	N	GLU	293C	60.758	94.850	36.102	1.00	41.38	C
	ATOM	1650	CA	GLU	293C	60.758	94.546	34.675	1.00	43.50	C
	ATOM	1651	CB	GLU	293C	59.775	95.466	33.948	1.00	43.25	C
	ATOM	1652	CG	GLU	293C	58.335	95.111	34.245	1.00	47.94	C
	ATOM	1653	CD	GLU	293C	57.323	96.065	33.631	1.00	49.86	C
25	ATOM	1654	OE1	GLU	293C	57.459	96.409	32.436	1.00	51.82	C
	ATOM	1655	OE2	GLU	293C	56.370	96.454	34.346	1.00	52.30	C
	ATOM	1656	C	GLU	293C	62.151	94.678	34.064	1.00	43.66	C
	ATOM	1657	O	GLU	293C	63.036	95.325	34.634	1.00	41.20	C
	ATOM	1658	N	GLU	294C	62.333	94.050	32.905	1.00	44.62	C
30	ATOM	1659	CA	GLU	294C	63.608	94.083	32.189	1.00	45.81	C
	ATOM	1660	CB	GLU	294C	63.467	93.372	30.837	1.00	47.40	C
	ATOM	1661	CG	GLU	294C	64.727	93.377	29.953	1.00	46.42	C
	ATOM	1662	CD	GLU	294C	65.900	92.609	30.559	1.00	47.46	C
	ATOM	1663	OE1	GLU	294C	65.681	91.758	31.459	1.00	47.71	C
35	ATOM	1664	OE2	GLU	294C	67.048	92.849	30.119	1.00	46.54	C
	ATOM	1665	C	GLU	294C	64.117	95.509	31.957	1.00	45.85	C
	ATOM	1666	O	GLU	294C	65.250	95.828	32.321	1.00	46.09	C
	ATOM	1667	N	ASN	295C	63.288	96.357	31.348	1.00	45.92	C
	ATOM	1668	CA	ASN	295C	63.677	97.744	31.073	1.00	48.50	C
40	ATOM	1669	CB	ASN	295C	62.485	98.575	30.585	1.00	52.82	C
	ATOM	1670	CG	ASN	295C	62.846	100.062	30.400	1.00	56.31	C
	ATOM	1671	OD1	ASN	295C	63.332	100.474	29.336	1.00	58.48	C
	ATOM	1672	ND2	ASN	295C	62.630	100.862	31.447	1.00	57.52	C
	ATOM	1673	C	ASN	295C	64.275	98.453	32.284	1.00	47.81	C
45	ATOM	1674	O	ASN	295C	65.040	99.400	32.136	1.00	48.35	C
	ATOM	1675	N	CYS	296C	63.921	98.004	33.482	1.00	47.38	C
	ATOM	1676	CA	CYS	296C	64.429	98.629	34.693	1.00	45.93	C
	ATOM	1677	C	CYS	296C	65.893	98.300	34.950	1.00	44.41	C
	ATOM	1678	O	CYS	296C	66.619	99.086	35.563	1.00	45.06	C
50	ATOM	1679	CB	CYS	296C	63.611	98.183	35.892	1.00	47.03	C
	ATOM	1680	SG	CYS	296C	64.076	99.024	37.436	1.00	49.47	C
	ATOM	1681	N	PHE	297C	66.325	97.129	34.504	1.00	42.89	C
	ATOM	1682	CA	PHE	297C	67.706	96.726	34.710	1.00	43.21	C
	ATOM	1683	CB	PHE	297C	67.877	96.172	36.133	1.00	42.48	C
55	ATOM	1684	CG	PHE	297C	69.304	96.187	36.644	1.00	44.17	C
	ATOM	1685	CD1	PHE	297C	69.563	96.012	38.008	1.00	41.93	C
	ATOM	1686	CD2	PHE	297C	70.387	96.348	35.773	1.00	44.10	C
	ATOM	1687	CE1	PHE	297C	70.875	95.993	38.498	1.00	43.72	C
	ATOM	1688	CE2	PHE	297C	71.712	96.333	36.255	1.00	42.88	C

	ATOM	1689	CZ	PHE	297C	71.959	96.155	37.614	1.00	43.34	C
	ATOM	1690	C	PHE	297C	68.047	95.679	33.660	1.00	43.23	C
	ATOM	1691	O	PHE	297C	68.011	94.472	33.927	1.00	42.82	C
	ATOM	1692	N	PRO	298C	68.360	96.137	32.432	1.00	43.64	C
5	ATOM	1693	CD	PRO	298C	68.343	97.561	32.041	1.00	42.49	C
	ATOM	1694	CA	PRO	298C	68.718	95.286	31.287	1.00	42.18	C
	ATOM	1695	CB	PRO	298C	69.180	96.301	30.242	1.00	42.07	C
	ATOM	1696	CG	PRO	298C	68.280	97.477	30.525	1.00	43.28	C
	ATOM	1697	C	PRO	298C	69.806	94.278	31.647	1.00	41.96	C
10	ATOM	1698	O	PRO	298C	70.709	94.581	32.428	1.00	42.45	C
	ATOM	1699	N	TYR	299C	69.723	93.084	31.067	1.00	41.48	C
	ATOM	1700	CA	TYR	299C	70.684	92.019	31.351	1.00	40.56	C
	ATOM	1701	CB	TYR	299C	70.078	90.675	30.939	1.00	38.60	C
	ATOM	1702	CG	TYR	299C	70.869	89.463	31.373	1.00	36.11	C
15	ATOM	1703	CD1	TYR	299C	71.157	89.238	32.723	1.00	35.97	C
	ATOM	1704	CE1	TYR	299C	71.863	88.095	33.134	1.00	36.07	C
	ATOM	1705	CD2	TYR	299C	71.304	88.520	30.440	1.00	34.09	C
	ATOM	1706	CE2	TYR	299C	72.003	87.377	30.836	1.00	36.07	C
	ATOM	1707	CZ	TYR	299C	72.280	87.173	32.186	1.00	35.60	C
20	ATOM	1708	OH	TYR	299C	72.986	86.061	32.578	1.00	35.47	C
	ATOM	1709	C	TYR	299C	72.046	92.203	30.671	1.00	41.47	C
	ATOM	1710	O	TYR	299C	72.121	92.509	29.478	1.00	41.13	C
	ATOM	1711	N	THR	300C	73.116	92.007	31.441	1.00	41.13	C
	ATOM	1712	CA	THR	300C	74.481	92.136	30.932	1.00	42.19	C
25	ATOM	1713	CB	THR	300C	75.209	93.348	31.558	1.00	43.22	C
	ATOM	1714	OG1	THR	300C	75.293	93.175	32.978	1.00	42.85	C
	ATOM	1715	CG2	THR	300C	74.460	94.652	31.244	1.00	41.81	C
	ATOM	1716	C	THR	300C	75.319	90.884	31.217	1.00	43.59	C
	ATOM	1717	O	THR	300C	76.508	90.831	30.887	1.00	43.93	C
30	ATOM	1718	N	ALA	301C	74.703	89.874	31.831	1.00	42.47	C
	ATOM	1719	CA	ALA	301C	75.415	88.639	32.140	1.00	41.74	C
	ATOM	1720	CB	ALA	301C	75.865	87.961	30.845	1.00	38.73	C
	ATOM	1721	C	ALA	301C	76.624	88.895	33.041	1.00	42.21	C
	ATOM	1722	O	ALA	301C	77.632	88.193	32.951	1.00	44.95	C
35	ATOM	1723	N	THR	302C	76.539	89.899	33.905	1.00	42.25	C
	ATOM	1724	CA	THR	302C	77.656	90.187	34.802	1.00	44.75	C
	ATOM	1725	CB	THR	302C	78.454	91.422	34.344	1.00	45.00	C
	ATOM	1726	OG1	THR	302C	77.538	92.473	34.007	1.00	46.28	C
	ATOM	1727	CG2	THR	302C	79.338	91.088	33.141	1.00	44.67	C
40	ATOM	1728	C	THR	302C	77.229	90.453	36.235	1.00	46.06	C
	ATOM	1729	O	THR	302C	76.066	90.764	36.515	1.00	46.42	C
	ATOM	1730	N	ASP	303C	78.181	90.326	37.147	1.00	46.71	C
	ATOM	1731	CA	ASP	303C	77.909	90.605	38.541	1.00	46.34	C
	ATOM	1732	CB	ASP	303C	78.923	89.887	39.437	1.00	45.96	C
45	ATOM	1733	CG	ASP	303C	78.566	88.418	39.657	1.00	46.49	C
	ATOM	1734	OD1	ASP	303C	79.477	87.568	39.730	1.00	48.18	C
	ATOM	1735	OD2	ASP	303C	77.368	88.108	39.772	1.00	48.24	C
	ATOM	1736	C	ASP	303C	78.002	92.121	38.683	1.00	46.99	C
	ATOM	1737	O	ASP	303C	78.737	92.645	39.524	1.00	47.05	C
50	ATOM	1738	N	ALA	304C	77.246	92.816	37.836	1.00	45.82	C
	ATOM	1739	CA	ALA	304C	77.203	94.273	37.839	1.00	47.64	C
	ATOM	1740	CB	ALA	304C	76.309	94.769	36.697	1.00	45.89	C
	ATOM	1741	C	ALA	304C	76.677	94.805	39.174	1.00	48.95	C
	ATOM	1742	O	ALA	304C	75.990	94.094	39.906	1.00	49.00	C
55	ATOM	1743	N	PRO	305C	76.997	96.070	39.504	1.00	50.16	C
	ATOM	1744	CD	PRO	305C	77.933	96.947	38.777	1.00	49.48	C
	ATOM	1745	CA	PRO	305C	76.554	96.705	40.753	1.00	50.12	C
	ATOM	1746	CB	PRO	305C	77.210	98.087	40.694	1.00	49.68	C
	ATOM	1747	CG	PRO	305C	78.450	97.839	39.881	1.00	50.46	C

	ATOM	1748	C	PRO	305C	75.032	96.807	40.782	1.00	50.86	C
	ATOM	1749	O	PRO	305C	74.379	96.837	39.728	1.00	51.09	C
	ATOM	1750	N	CYS	306C	74.454	96.876	41.976	1.00	50.84	C
	ATOM	1751	CA	CYS	306C	73.004	96.965	42.062	1.00	50.14	C
5	ATOM	1752	C	CYS	306C	72.515	98.404	41.878	1.00	49.78	C
	ATOM	1753	O	CYS	306C	72.487	99.193	42.829	1.00	48.40	C
	ATOM	1754	CB	CYS	306C	72.504	96.384	43.393	1.00	48.98	C
	ATOM	1755	SG	CYS	306C	70.707	96.615	43.561	1.00	49.71	C
	ATOM	1756	N	LYS	307C	72.114	98.732	40.649	1.00	50.32	C
10	ATOM	1757	CA	LYS	307C	71.650	100.079	40.331	1.00	51.81	C
	ATOM	1758	CB	LYS	307C	72.823	100.910	39.768	1.00	52.79	C
	ATOM	1759	CG	LYS	307C	73.934	101.253	40.797	1.00	56.05	C
	ATOM	1760	CD	LYS	307C	75.069	102.121	40.202	1.00	53.84	C
	ATOM	1761	CE	LYS	307C	76.243	102.352	41.155	1.00	53.81	C
15	ATOM	1762	NZ	LYS	307C	77.435	102.951	40.432	1.00	51.94	C
	ATOM	1763	C	LYS	307C	70.480	100.111	39.347	1.00	52.37	C
	ATOM	1764	O	LYS	307C	70.593	100.645	38.243	1.00	54.06	C
	ATOM	1765	N	PRO	308C	69.326	99.563	39.732	1.00	51.54	C
	ATOM	1766	CD	PRO	308C	68.875	99.031	41.032	1.00	51.18	C
20	ATOM	1767	CA	PRO	308C	68.229	99.614	38.760	1.00	49.80	C
	ATOM	1768	CB	PRO	308C	67.168	98.742	39.412	1.00	50.54	C
	ATOM	1769	CG	PRO	308C	67.364	99.062	40.890	1.00	50.56	C
	ATOM	1770	C	PRO	308C	67.757	101.052	38.584	1.00	50.43	C
	ATOM	1771	O	PRO	308C	68.141	101.932	39.363	1.00	49.06	C
25	ATOM	1772	N	LYS	309C	66.928	101.297	37.567	1.00	51.35	C
	ATOM	1773	CA	LYS	309C	66.395	102.637	37.348	1.00	53.39	C
	ATOM	1774	CB	LYS	309C	65.402	102.659	36.173	1.00	52.85	C
	ATOM	1775	CG	LYS	309C	66.063	102.519	34.809	1.00	53.90	C
	ATOM	1776	CD	LYS	309C	65.141	102.915	33.655	1.00	53.55	C
30	ATOM	1777	CE	LYS	309C	65.929	102.928	32.337	1.00	54.15	C
	ATOM	1778	NZ	LYS	309C	65.074	103.194	31.128	1.00	55.80	C
	ATOM	1779	C	LYS	309C	65.682	103.065	38.635	1.00	55.24	C
	ATOM	1780	O	LYS	309C	65.512	102.262	39.558	1.00	54.49	C
	ATOM	1781	N	GLU	310C	65.555	104.240	39.033	1.00	57.19	C
35	ATOM	1782	CA	GLU	310C	64.699	104.534	40.177	1.00	58.47	C
	ATOM	1783	CB	GLU	310C	65.155	105.826	40.868	1.00	62.70	C
	ATOM	1784	CG	GLU	310C	66.497	105.692	41.594	1.00	67.69	C
	ATOM	1785	CD	GLU	310C	66.887	106.977	42.323	1.00	70.48	C
	ATOM	1786	OE1	GLU	310C	66.238	108.033	42.095	1.00	71.31	C
40	ATOM	1787	OE2	GLU	310C	67.849	106.921	43.126	1.00	72.31	C
	ATOM	1788	C	GLU	310C	63.224	104.639	39.849	1.00	57.33	C
	ATOM	1789	O	GLU	310C	62.817	105.370	38.938	1.00	55.05	C
	ATOM	1790	N	ASN	311C	62.799	103.922	41.173	1.00	56.73	C
	ATOM	1791	CA	ASN	311C	61.448	103.496	41.510	1.00	56.06	C
45	ATOM	1792	CB	ASN	311C	60.673	104.704	42.018	1.00	59.97	C
	ATOM	1793	CG	ASN	311C	61.440	105.464	43.087	1.00	63.92	C
	ATOM	1794	OD1	ASN	311C	62.222	104.869	43.851	1.00	65.21	C
	ATOM	1795	ND2	ASN	311C	61.224	106.779	43.157	1.00	63.92	C
	ATOM	1796	C	ASN	311C	60.628	102.764	40.442	1.00	54.41	C
50	ATOM	1797	O	ASN	311C	59.525	103.188	40.093	1.00	52.52	C
	ATOM	1798	N	CYS	312C	61.157	101.660	39.928	1.00	52.59	C
	ATOM	1799	CA	CYS	312C	60.410	100.881	38.946	1.00	50.88	C
	ATOM	1800	C	CYS	312C	59.345	100.084	39.706	1.00	48.44	C
	ATOM	1801	O	CYS	312C	59.487	99.828	40.908	1.00	46.22	C
55	ATOM	1802	CB	CYS	312C	61.315	99.890	38.226	1.00	52.87	C
	ATOM	1803	SG	CYS	312C	62.796	100.598	37.445	1.00	55.87	C
	ATOM	1804	N	LEU	313C	58.285	99.699	38.999	1.00	44.82	C
	ATOM	1805	CA	LEU	313C	57.215	98.921	39.593	1.00	41.50	C
	ATOM	1806	CB	LEU	313C	56.123	98.652	38.561	1.00	41.51	C

	ATOM	1807	CG	LEU	313C	54.984	97.738	39.006	1.00	41.80	C
	ATOM	1808	CD1	LEU	313C	54.190	98.417	40.114	1.00	43.15	C
	ATOM	1809	CD2	LEU	313C	54.085	97.440	37.829	1.00	42.57	C
	ATOM	1810	C	LEU	313C	57.826	97.601	40.031	1.00	41.33	C
5	ATOM	1811	O	LEU	313C	58.719	97.077	39.364	1.00	40.94	C
	ATOM	1812	N	ARG	314C	57.360	97.067	41.187	1.00	40.36	C
	ATOM	1813	CA	ARG	314C	57.863	95.757	41.663	1.00	38.33	C
	ATOM	1814	CB	ARG	314C	58.521	95.925	43.060	1.00	39.43	C
	ATOM	1815	CG	ARG	314C	59.649	96.946	42.901	1.00	35.94	C
10	ATOM	1816	CD	ARG	314C	60.889	96.930	43.813	1.00	40.20	C
	ATOM	1817	NE	ARG	314C	61.831	95.782	43.829	1.00	44.23	C
	ATOM	1818	CZ	ARG	314C	63.111	95.838	43.382	1.00	42.80	C
	ATOM	1819	NH1	ARG	314C	63.599	96.944	42.779	1.00	41.18	C
	ATOM	1820	NH2	ARG	314C	63.992	94.847	43.563	1.00	47.09	C
15	ATOM	1821	C	ARG	314C	56.720	94.766	41.716	1.00	38.31	C
	ATOM	1822	O	ARG	314C	55.558	95.144	41.887	1.00	36.01	C
	ATOM	1823	N	TYR	315C	57.089	93.530	41.411	1.00	38.20	C
	ATOM	1824	CA	TYR	315C	56.128	92.427	41.396	1.00	36.54	C
	ATOM	1825	CB	TYR	315C	56.182	91.668	40.078	1.00	36.49	C
20	ATOM	1826	CG	TYR	315C	55.707	92.468	38.897	1.00	36.35	C
	ATOM	1827	CD1	TYR	315C	56.481	93.507	38.372	1.00	37.51	C
	ATOM	1828	CE1	TYR	315C	56.053	94.230	37.256	1.00	38.66	C
	ATOM	1829	CD2	TYR	315C	54.490	92.174	38.282	1.00	37.39	C
	ATOM	1830	CE2	TYR	315C	54.052	92.890	37.168	1.00	36.28	C
25	ATOM	1831	CZ	TYR	315C	54.832	93.909	36.662	1.00	37.26	C
	ATOM	1832	OH	TYR	315C	54.394	94.601	35.563	1.00	40.40	C
	ATOM	1833	C	TYR	315C	56.463	91.483	42.528	1.00	36.02	C
	ATOM	1834	O	TYR	315C	57.634	91.209	42.794	1.00	36.19	C
	ATOM	1835	N	TYR	316C	55.431	90.969	43.184	1.00	35.57	C
30	ATOM	1836	CA	TYR	316C	55.631	90.083	44.317	1.00	34.18	C
	ATOM	1837	CB	TYR	316C	55.115	90.771	45.583	1.00	35.06	C
	ATOM	1838	CG	TYR	316C	55.845	92.047	45.926	1.00	35.08	C
	ATOM	1839	CD1	TYR	316C	56.858	92.053	46.884	1.00	34.95	C
	ATOM	1840	CE1	TYR	316C	57.541	93.213	47.200	1.00	34.50	C
35	ATOM	1841	CD2	TYR	316C	55.534	93.247	45.287	1.00	36.53	C
	ATOM	1842	CE2	TYR	316C	56.220	94.425	45.596	1.00	35.41	C
	ATOM	1843	CZ	TYR	316C	57.220	94.394	46.554	1.00	37.02	C
	ATOM	1844	OH	TYR	316C	57.915	95.540	46.869	1.00	40.95	C
	ATOM	1845	C	TYR	316C	54.951	88.732	44.178	1.00	34.32	C
40	ATOM	1846	O	TYR	316C	54.056	88.541	43.348	1.00	34.67	C
	ATOM	1847	N	SER	317C	55.392	87.791	45.003	1.00	32.02	C
	ATOM	1848	CA	SER	317C	54.806	86.464	45.026	1.00	32.37	C
	ATOM	1849	CB	SER	317C	55.889	85.381	44.943	1.00	30.76	C
	ATOM	1850	OG	SER	317C	56.393	85.257	43.626	1.00	32.09	C
45	ATOM	1851	C	SER	317C	54.038	86.330	46.334	1.00	33.02	C
	ATOM	1852	O	SER	317C	54.601	86.534	47.413	1.00	34.34	C
	ATOM	1853	N	SER	318C	52.753	86.000	46.234	1.00	33.88	C
	ATOM	1854	CA	SER	318C	51.905	85.826	47.411	1.00	34.38	C
	ATOM	1855	CB	SER	318C	50.426	85.897	47.019	1.00	32.60	C
50	ATOM	1856	OG	SER	318C	50.091	84.867	46.108	1.00	33.01	C
	ATOM	1857	C	SER	318C	52.189	84.490	48.100	1.00	35.89	C
	ATOM	1858	O	SER	318C	51.943	84.343	49.295	1.00	36.70	C
	ATOM	1859	N	GLU	319C	52.698	83.518	47.348	1.00	36.23	C
	ATOM	1860	CA	GLU	319C	53.020	82.208	47.912	1.00	37.44	C
55	ATOM	1861	CB	GLU	319C	51.756	81.345	48.042	1.00	39.51	C
	ATOM	1862	CG	GLU	319C	52.007	79.899	48.510	1.00	45.19	C
	ATOM	1863	CD	GLU	319C	52.554	79.779	49.951	1.00	47.22	C
	ATOM	1864	OE1	GLU	319C	53.663	80.289	50.253	1.00	47.01	C
	ATOM	1865	OE2	GLU	319C	51.863	79.154	50.788	1.00	49.62	C

	ATOM	1866	C	GLU	319C	54.054	81.481	47.060	1.00	37.00	C
	ATOM	1867	O	GLU	319C	54.209	81.768	45.869	1.00	36.83	C
	ATOM	1868	N	TYR	320C	54.768	80.553	47.692	1.00	34.32	C
	ATOM	1869	CA	TYR	320C	55.798	79.755	47.039	1.00	32.80	C
5	ATOM	1870	CB	TYR	320C	57.105	80.547	46.877	1.00	32.30	C
	ATOM	1871	CG	TYR	320C	57.640	81.151	48.161	1.00	34.96	C
	ATOM	1872	CD1	TYR	320C	57.213	82.409	48.598	1.00	31.24	C
	ATOM	1873	CE1	TYR	320C	57.702	82.963	49.764	1.00	31.55	C
	ATOM	1874	CD2	TYR	320C	58.575	80.464	48.944	1.00	32.05	C
10	ATOM	1875	CE2	TYR	320C	59.068	81.013	50.118	1.00	31.21	C
	ATOM	1876	CZ	TYR	320C	58.630	82.265	50.521	1.00	32.25	C
	ATOM	1877	OH	TYR	320C	59.138	82.828	51.668	1.00	33.25	C
	ATOM	1878	C	TYR	320C	56.052	78.507	47.881	1.00	31.66	C
	ATOM	1879	O	TYR	320C	55.995	78.553	49.106	1.00	29.23	C
15	ATOM	1880	N	TYR	321C	56.355	77.400	47.215	1.00	31.45	C
	ATOM	1881	CA	TYR	321C	56.578	76.144	47.905	1.00	31.39	C
	ATOM	1882	CB	TYR	321C	55.224	75.613	48.402	1.00	33.28	C
	ATOM	1883	CG	TYR	321C	54.158	75.630	47.318	1.00	34.81	C
	ATOM	1884	CD1	TYR	321C	54.061	74.591	46.393	1.00	35.66	C
20	ATOM	1885	CE1	TYR	321C	53.174	74.658	45.318	1.00	36.78	C
	ATOM	1886	CD2	TYR	321C	53.324	76.742	47.144	1.00	36.50	C
	ATOM	1887	CE2	TYR	321C	52.433	76.820	46.072	1.00	35.27	C
	ATOM	1888	CZ	TYR	321C	52.366	75.775	45.160	1.00	38.74	C
	ATOM	1889	OH	TYR	321C	51.511	75.844	44.081	1.00	39.93	C
25	ATOM	1890	C	TYR	321C	57.203	75.129	46.965	1.00	33.02	C
	ATOM	1891	O	TYR	321C	57.255	75.337	45.749	1.00	33.46	C
	ATOM	1892	N	TYR	322C	57.682	74.029	47.536	1.00	32.30	C
	ATOM	1893	CA	TYR	322C	58.242	72.946	46.745	1.00	30.61	C
	ATOM	1894	CB	TYR	322C	59.291	72.156	47.540	1.00	28.96	C
30	ATOM	1895	CG	TYR	322C	60.667	72.762	47.486	1.00	31.20	C
	ATOM	1896	CD1	TYR	322C	61.324	73.149	48.653	1.00	32.44	C
	ATOM	1897	CE1	TYR	322C	62.581	73.756	48.605	1.00	31.94	C
	ATOM	1898	CD2	TYR	322C	61.303	72.993	46.260	1.00	30.41	C
	ATOM	1899	CE2	TYR	322C	62.557	73.604	46.201	1.00	30.21	C
35	ATOM	1900	CZ	TYR	322C	63.188	73.981	47.376	1.00	32.48	C
	ATOM	1901	OH	TYR	322C	64.420	74.591	47.334	1.00	32.97	C
	ATOM	1902	C	TYR	322C	57.065	72.041	46.430	1.00	30.68	C
	ATOM	1903	O	TYR	322C	56.198	71.851	47.279	1.00	31.16	C
	ATOM	1904	N	VAL	323C	57.015	71.515	45.208	1.00	31.53	C
40	ATOM	1905	CA	VAL	323C	55.948	70.599	44.832	1.00	31.70	C
	ATOM	1906	CB	VAL	323C	56.107	70.102	43.375	1.00	31.76	C
	ATOM	1907	CG1	VAL	323C	55.106	68.997	43.090	1.00	29.24	C
	ATOM	1908	CG2	VAL	323C	55.896	71.257	42.409	1.00	30.76	C
	ATOM	1909	C	VAL	323C	56.065	69.418	45.792	1.00	32.07	C
45	ATOM	1910	O	VAL	323C	57.115	68.801	45.911	1.00	31.97	C
	ATOM	1911	N	GLY	324C	54.984	69.115	46.491	1.00	32.96	C
	ATOM	1912	CA	GLY	324C	55.026	68.031	47.451	1.00	33.37	C
	ATOM	1913	C	GLY	324C	55.043	68.624	48.844	1.00	32.95	C
	ATOM	1914	O	GLY	324C	54.959	67.900	49.832	1.00	34.70	C
50	ATOM	1915	N	GLY	325C	55.176	69.946	48.920	1.00	32.14	C
	ATOM	1916	CA	GLY	325C	55.167	70.623	50.205	1.00	32.65	C
	ATOM	1917	C	GLY	325C	56.506	70.992	50.813	1.00	34.07	C
	ATOM	1918	O	GLY	325C	56.582	71.918	51.615	1.00	35.76	C
	ATOM	1919	N	PHE	326C	57.561	70.274	50.443	1.00	32.05	C
55	ATOM	1920	CA	PHE	326C	58.889	70.540	50.981	1.00	31.75	C
	ATOM	1921	CB	PHE	326C	58.957	70.112	52.457	1.00	30.88	C
	ATOM	1922	CG	PHE	326C	58.507	68.695	52.692	1.00	32.28	C
	ATOM	1923	CD1	PHE	326C	59.361	67.621	52.428	1.00	32.17	C
	ATOM	1924	CD2	PHE	326C	57.194	68.428	53.080	1.00	31.14	C

	ATOM	1925	CE1	PHE	326C	58.913	66.306	52.534	1.00	33.66	C
	ATOM	1926	CE2	PHE	326C	56.732	67.117	53.191	1.00	32.27	C
	ATOM	1927	CZ	PHE	326C	57.591	66.052	52.915	1.00	35.18	C
	ATOM	1928	C	PHE	326C	59.883	69.740	50.156	1.00	32.65	C
5	ATOM	1929	O	PHE	326C	59.499	68.795	49.474	1.00	31.19	C
	ATOM	1930	N	TYR	327C	61.155	70.124	50.218	1.00	32.42	C
	ATOM	1931	CA	TYR	327C	62.191	69.430	49.471	1.00	31.51	C
	ATOM	1932	CB	TYR	327C	63.547	70.083	49.716	1.00	34.32	C
	ATOM	1933	CG	TYR	327C	64.664	69.477	48.901	1.00	34.97	C
10	ATOM	1934	CD1	TYR	327C	64.470	69.147	47.560	1.00	36.83	C
	ATOM	1935	CE1	TYR	327C	65.502	68.628	46.791	1.00	35.25	C
	ATOM	1936	CD2	TYR	327C	65.922	69.272	49.455	1.00	35.25	C
	ATOM	1937	CE2	TYR	327C	66.965	68.756	48.694	1.00	36.36	C
	ATOM	1938	CZ	TYR	327C	66.748	68.437	47.361	1.00	35.11	C
15	ATOM	1939	OH	TYR	327C	67.772	67.932	46.602	1.00	34.04	C
	ATOM	1940	C	TYR	327C	62.248	67.960	49.859	1.00	31.95	C
	ATOM	1941	O	TYR	327C	62.542	67.606	51.006	1.00	29.67	C
	ATOM	1942	N	GLY	328C	61.960	67.108	48.884	1.00	31.08	C
	ATOM	1943	CA	GLY	328C	61.963	65.685	49.125	1.00	30.84	C
20	ATOM	1944	C	GLY	328C	60.605	65.074	48.851	1.00	32.16	C
	ATOM	1945	O	GLY	328C	60.489	63.858	48.730	1.00	32.19	C
	ATOM	1946	N	GLY	329C	59.577	65.910	48.736	1.00	31.82	C
	ATOM	1947	CA	GLY	329C	58.244	65.390	48.483	1.00	32.74	C
	ATOM	1948	C	GLY	329C	57.785	65.364	47.037	1.00	31.70	C
25	ATOM	1949	O	GLY	329C	56.674	64.928	46.747	1.00	30.76	C
	ATOM	1950	N	CYS	330C	58.641	65.805	46.125	1.00	32.75	C
	ATOM	1951	CA	CYS	330C	58.305	65.855	44.703	1.00	33.51	C
	ATOM	1952	CB	CYS	330C	59.367	66.694	43.976	1.00	34.94	C
	ATOM	1953	SG	CYS	330C	59.052	67.114	42.238	1.00	33.58	C
30	ATOM	1954	C	CYS	330C	58.164	64.493	44.010	1.00	35.17	C
	ATOM	1955	O	CYS	330C	58.798	63.516	44.396	1.00	34.12	C
	ATOM	1956	N	ASN	331C	57.294	64.436	43.003	1.00	36.70	C
	ATOM	1957	CA	ASN	331C	57.099	63.235	42.189	1.00	35.98	C
	ATOM	1958	CB	ASN	331C	56.348	62.130	42.952	1.00	35.64	C
35	ATOM	1959	CG	ASN	331C	54.879	62.442	43.182	1.00	37.76	C
	ATOM	1960	OD1	ASN	331C	54.111	62.651	42.240	1.00	38.28	C
	ATOM	1961	ND2	ASN	331C	54.475	62.450	44.448	1.00	38.14	C
	ATOM	1962	C	ASN	331C	56.357	63.637	40.918	1.00	36.65	C
	ATOM	1963	O	ASN	331C	55.704	64.680	40.885	1.00	36.77	C
40	ATOM	1964	N	GLU	332C	56.474	62.823	39.874	1.00	37.40	C
	ATOM	1965	CA	GLU	332C	55.829	63.100	38.588	1.00	37.73	C
	ATOM	1966	CB	GLU	332C	55.974	61.884	37.651	1.00	39.70	C
	ATOM	1967	CG	GLU	332C	54.934	61.859	36.520	1.00	42.08	C
	ATOM	1968	CD	GLU	332C	55.091	60.685	35.567	1.00	43.70	C
45	ATOM	1969	OE1	GLU	332C	55.540	59.600	36.005	1.00	45.28	C
	ATOM	1970	OE2	GLU	332C	54.743	60.844	34.373	1.00	44.40	C
	ATOM	1971	C	GLU	332C	54.351	63.525	38.636	1.00	36.61	C
	ATOM	1972	O	GLU	332C	53.965	64.519	38.015	1.00	36.38	C
	ATOM	1973	N	ALA	333C	53.530	62.767	39.355	1.00	35.01	C
50	ATOM	1974	CA	ALA	333C	52.093	63.053	39.456	1.00	33.63	C
	ATOM	1975	CB	ALA	333C	51.406	61.970	40.302	1.00	31.77	C
	ATOM	1976	C	ALA	333C	51.762	64.446	40.012	1.00	34.22	C
	ATOM	1977	O	ALA	333C	50.921	65.153	39.458	1.00	36.15	C
	ATOM	1978	N	LEU	334C	52.408	64.831	41.112	1.00	33.77	C
55	ATOM	1979	CA	LEU	334C	52.178	66.140	41.709	1.00	32.60	C
	ATOM	1980	CB	LEU	334C	52.886	66.249	43.062	1.00	32.34	C
	ATOM	1981	CG	LEU	334C	52.397	65.286	44.149	1.00	32.75	C
	ATOM	1982	CD1	LEU	334C	53.285	65.416	45.377	1.00	31.61	C
	ATOM	1983	CD2	LEU	334C	50.937	65.584	44.496	1.00	30.02	C

	ATOM	1984	C	LEU	334C	52.664	67.243	40.780	1.00	33.08	C
	ATOM	1985	O	LEU	334C	52.095	68.327	40.757	1.00	33.88	C
	ATOM	1986	N	MET	335C	53.724	66.970	40.023	1.00	32.36	C
	ATOM	1987	CA	MET	335C	54.246	67.952	39.080	1.00	32.17	C
5	ATOM	1988	CB	MET	335C	55.569	67.467	38.471	1.00	33.28	C
	ATOM	1989	CG	MET	335C	56.775	67.578	39.399	1.00	32.00	C
	ATOM	1990	SD	MET	335C	58.237	66.681	38.777	1.00	33.11	C
	ATOM	1991	CE	MET	335C	58.762	67.777	37.445	1.00	29.76	C
	ATOM	1992	C	MET	335C	53.213	68.192	37.974	1.00	30.38	C
10	ATOM	1993	O	MET	335C	52.929	69.340	37.620	1.00	29.99	C
	ATOM	1994	N	LYS	336C	52.648	67.108	37.440	1.00	29.70	C
	ATOM	1995	CA	LYS	336C	51.632	67.205	36.394	1.00	32.70	C
	ATOM	1996	CB	LYS	336C	51.157	65.812	35.968	1.00	31.01	C
	ATOM	1997	CG	LYS	336C	52.079	65.095	35.006	1.00	31.76	C
15	ATOM	1998	CD	LYS	336C	51.683	63.629	34.841	1.00	30.72	C
	ATOM	1999	CE	LYS	336C	50.361	63.468	34.122	1.00	30.72	C
	ATOM	2000	NZ	LYS	336C	49.920	62.044	34.113	1.00	30.23	C
	ATOM	2001	C	LYS	336C	50.430	68.012	36.890	1.00	34.90	C
	ATOM	2002	O	LYS	336C	49.875	68.831	36.154	1.00	35.75	C
20	ATOM	2003	N	LEU	337C	50.030	67.772	38.138	1.00	34.39	C
	ATOM	2004	CA	LEU	337C	48.898	68.479	38.726	1.00	34.73	C
	ATOM	2005	CB	LEU	337C	48.555	67.879	40.094	1.00	36.62	C
	ATOM	2006	CG	LEU	337C	47.367	68.434	40.883	1.00	39.73	C
	ATOM	2007	CD1	LEU	337C	46.097	68.372	40.034	1.00	38.38	C
25	ATOM	2008	CD2	LEU	337C	47.192	67.614	42.170	1.00	39.38	C
	ATOM	2009	C	LEU	337C	49.216	69.964	38.871	1.00	34.35	C
	ATOM	2010	O	LEU	337C	48.443	70.824	38.444	1.00	35.54	C
	ATOM	2011	N	GLU	338C	50.362	70.263	39.474	1.00	32.29	C
	ATOM	2012	CA	GLU	338C	50.777	71.646	39.659	1.00	32.37	C
30	ATOM	2013	CB	GLU	338C	52.115	71.695	40.398	1.00	30.50	C
	ATOM	2014	CG	GLU	338C	52.670	73.091	40.619	1.00	32.15	C
	ATOM	2015	CD	GLU	338C	51.797	73.940	41.525	1.00	33.83	C
	ATOM	2016	OE1	GLU	338C	51.143	73.370	42.422	1.00	36.26	C
	ATOM	2017	OE2	GLU	338C	51.782	75.179	41.354	1.00	35.56	C
35	ATOM	2018	C	GLU	338C	50.904	72.353	38.310	1.00	31.66	C
	ATOM	2019	O	GLU	338C	50.520	73.508	38.175	1.00	31.49	C
	ATOM	2020	N	LEU	339C	51.440	71.651	37.315	1.00	31.90	C
	ATOM	2021	CA	LEU	339C	51.610	72.232	35.992	1.00	32.78	C
	ATOM	2022	CB	LEU	339C	52.316	71.243	35.056	1.00	32.61	C
40	ATOM	2023	CG	LEU	339C	52.627	71.778	33.655	1.00	34.38	C
	ATOM	2024	CD1	LEU	339C	53.627	72.915	33.761	1.00	31.74	C
	ATOM	2025	CD2	LEU	339C	53.195	70.670	32.773	1.00	34.86	C
	ATOM	2026	C	LEU	339C	50.278	72.648	35.372	1.00	32.19	C
	ATOM	2027	O	LEU	339C	50.088	73.798	35.004	1.00	33.05	C
45	ATOM	2028	N	VAL	340C	49.346	71.713	35.273	1.00	32.93	C
	ATOM	2029	CA	VAL	340C	48.060	72.013	34.659	1.00	35.48	C
	ATOM	2030	CB	VAL	340C	47.262	70.709	34.406	1.00	37.63	C
	ATOM	2031	CG1	VAL	340C	45.963	71.026	33.699	1.00	39.05	C
	ATOM	2032	CG2	VAL	340C	48.087	69.752	33.555	1.00	35.15	C
50	ATOM	2033	C	VAL	340C	47.204	72.999	35.449	1.00	36.51	C
	ATOM	2034	O	VAL	340C	46.539	73.848	34.866	1.00	38.25	C
	ATOM	2035	N	LYS	341C	47.240	72.896	36.772	1.00	37.06	C
	ATOM	2036	CA	LYS	341C	46.467	73.765	37.658	1.00	36.80	C
	ATOM	2037	CB	LYS	341C	46.447	73.170	39.065	1.00	40.41	C
55	ATOM	2038	CG	LYS	341C	45.115	72.666	39.561	1.00	44.82	C
	ATOM	2039	CD	LYS	341C	45.277	72.076	40.972	1.00	48.70	C
	ATOM	2040	CE	LYS	341C	43.935	71.886	41.669	1.00	51.48	C
	ATOM	2041	NZ	LYS	341C	43.226	73.201	41.857	1.00	52.86	C
	ATOM	2042	C	LYS	341C	46.979	75.204	37.772	1.00	38.03	C

	ATOM	2043	O	LYS	341C	46.204	76.156	37.677	1.00	36.41	C
	ATOM	2044	N	HIS	342C	48.281	75.369	37.984	1.00	37.39	C
	ATOM	2045	CA	HIS	342C	48.822	76.709	38.172	1.00	38.95	C
	ATOM	2046	CB	HIS	342C	49.449	76.805	39.568	1.00	39.83	C
5	ATOM	2047	CG	HIS	342C	48.522	76.381	40.665	1.00	40.53	C
	ATOM	2048	CD2	HIS	342C	48.516	75.279	41.451	1.00	41.36	C
	ATOM	2049	ND1	HIS	342C	47.388	77.093	40.997	1.00	42.40	C
	ATOM	2050	CE1	HIS	342C	46.723	76.446	41.936	1.00	41.54	C
	ATOM	2051	NE2	HIS	342C	47.385	75.340	42.229	1.00	42.53	C
10	ATOM	2052	C	HIS	342C	49.800	77.232	37.134	1.00	38.85	C
	ATOM	2053	O	HIS	342C	50.175	78.402	37.189	1.00	38.88	C
	ATOM	2054	N	GLY	343C	50.213	76.384	36.196	1.00	37.75	C
	ATOM	2055	CA	GLY	343C	51.134	76.832	35.166	1.00	36.68	C
	ATOM	2056	C	GLY	343C	52.568	76.336	35.277	1.00	36.64	C
15	ATOM	2057	O	GLY	343C	52.889	75.517	36.146	1.00	37.42	C
	ATOM	2058	N	PRO	344C	53.457	76.811	34.386	1.00	34.78	C
	ATOM	2059	CD	PRO	344C	53.141	77.690	33.241	1.00	34.64	C
	ATOM	2060	CA	PRO	344C	54.871	76.432	34.366	1.00	32.82	C
	ATOM	2061	CB	PRO	344C	55.455	77.352	33.296	1.00	32.66	C
20	ATOM	2062	CG	PRO	344C	54.316	77.457	32.318	1.00	34.67	C
	ATOM	2063	C	PRO	344C	55.557	76.606	35.716	1.00	31.27	C
	ATOM	2064	O	PRO	344C	55.301	77.569	36.442	1.00	31.59	C
	ATOM	2065	N	MET	345C	56.438	75.667	36.038	1.00	30.45	C
	ATOM	2066	CA	MET	345C	57.171	75.695	37.296	1.00	32.32	C
25	ATOM	2067	CB	MET	345C	56.643	74.614	38.233	1.00	30.74	C
	ATOM	2068	CG	MET	345C	57.029	73.226	37.794	1.00	32.71	C
	ATOM	2069	SD	MET	345C	56.065	71.986	38.616	1.00	35.89	C
	ATOM	2070	CE	MET	345C	54.624	71.992	37.586	1.00	33.56	C
	ATOM	2071	C	MET	345C	58.670	75.475	37.099	1.00	33.20	C
30	ATOM	2072	O	MET	345C	59.120	74.990	36.055	1.00	33.90	C
	ATOM	2073	N	ALA	346C	59.434	75.821	38.130	1.00	33.18	C
	ATOM	2074	CA	ALA	346C	60.876	75.658	38.114	1.00	33.51	C
	ATOM	2075	CB	ALA	346C	61.522	76.662	39.070	1.00	32.10	C
	ATOM	2076	C	ALA	346C	61.280	74.235	38.502	1.00	34.12	C
35	ATOM	2077	O	ALA	346C	60.666	73.607	39.370	1.00	34.73	C
	ATOM	2078	N	VAL	347C	62.307	73.734	37.828	1.00	34.39	C
	ATOM	2079	CA	VAL	347C	62.860	72.415	38.092	1.00	32.93	C
	ATOM	2080	CB	VAL	347C	62.284	71.334	37.138	1.00	32.26	C
	ATOM	2081	CG1	VAL	347C	60.788	71.189	37.360	1.00	31.80	C
40	ATOM	2082	CG2	VAL	347C	62.579	71.691	35.694	1.00	30.43	C
	ATOM	2083	C	VAL	347C	64.357	72.528	37.860	1.00	33.63	C
	ATOM	2084	O	VAL	347C	64.808	73.409	37.130	1.00	34.41	C
	ATOM	2085	N	ALA	348C	65.131	71.660	38.498	1.00	32.97	C
	ATOM	2086	CA	ALA	348C	66.576	71.660	38.314	1.00	32.08	C
45	ATOM	2087	CB	ALA	348C	67.275	72.213	39.554	1.00	32.24	C
	ATOM	2088	C	ALA	348C	67.007	70.223	38.047	1.00	31.90	C
	ATOM	2089	O	ALA	348C	66.330	69.286	38.455	1.00	32.63	C
	ATOM	2090	N	PHE	349C	68.121	70.044	37.352	1.00	31.97	C
	ATOM	2091	CA	PHE	349C	68.602	68.702	37.048	1.00	32.73	C
50	ATOM	2092	CB	PHE	349C	67.893	68.148	35.812	1.00	31.29	C
	ATOM	2093	CG	PHE	349C	68.255	68.853	34.533	1.00	32.83	C
	ATOM	2094	CD1	PHE	349C	67.860	70.169	34.308	1.00	30.76	C
	ATOM	2095	CD2	PHE	349C	68.970	68.185	33.535	1.00	33.25	C
	ATOM	2096	CE1	PHE	349C	68.163	70.814	33.103	1.00	33.71	C
55	ATOM	2097	CE2	PHE	349C	69.280	68.820	32.321	1.00	34.19	C
	ATOM	2098	CZ	PHE	349C	68.872	70.139	32.105	1.00	34.21	C
	ATOM	2099	C	PHE	349C	70.099	68.736	36.798	1.00	33.85	C
	ATOM	2100	O	PHE	349C	70.709	69.803	36.827	1.00	35.04	C
	ATOM	2101	N	GLU	350C	70.691	67.572	36.549	1.00	34.78	C

	ATOM	2102	CA	GLU	350C	72.126	67.510	36.289	1.00	36.58	C
	ATOM	2103	CB	GLU	350C	72.730	66.227	36.869	1.00	39.17	C
	ATOM	2104	CG	GLU	350C	74.212	66.373	37.217	1.00	43.00	C
	ATOM	2105	CD	GLU	350C	74.898	65.041	37.498	1.00	44.91	C
5	ATOM	2106	OE1	GLU	350C	74.270	64.150	38.113	1.00	44.01	C
	ATOM	2107	OE2	GLU	350C	76.081	64.894	37.111	1.00	46.98	C
	ATOM	2108	C	GLU	350C	72.422	67.565	34.793	1.00	35.36	C
	ATOM	2109	O	GLU	350C	72.012	66.685	34.044	1.00	31.99	C
	ATOM	2110	N	VAL	351C	73.125	68.611	34.363	1.00	37.41	C
10	ATOM	2111	CA	VAL	351C	73.500	68.748	32.953	1.00	38.55	C
	ATOM	2112	CB	VAL	351C	73.769	70.223	32.566	1.00	37.18	C
	ATOM	2113	CG1	VAL	351C	74.519	70.290	31.248	1.00	37.59	C
	ATOM	2114	CG2	VAL	351C	72.461	70.972	32.432	1.00	38.04	C
	ATOM	2115	C	VAL	351C	74.771	67.940	32.698	1.00	38.24	C
15	ATOM	2116	O	VAL	351C	75.799	68.180	33.322	1.00	39.22	C
	ATOM	2117	N	HIS	352C	74.688	66.964	31.803	1.00	39.23	C
	ATOM	2118	CA	HIS	352C	75.848	66.152	31.465	1.00	41.67	C
	ATOM	2119	CB	HIS	352C	75.463	64.687	31.326	1.00	41.13	C
	ATOM	2120	CG	HIS	352C	75.079	64.048	32.619	1.00	42.89	C
20	ATOM	2121	CD2	HIS	352C	73.881	63.630	33.087	1.00	41.03	C
	ATOM	2122	ND1	HIS	352C	75.993	63.785	33.617	1.00	43.67	C
	ATOM	2123	CE1	HIS	352C	75.372	63.229	34.643	1.00	43.29	C
	ATOM	2124	NE2	HIS	352C	74.090	63.124	34.346	1.00	41.22	C
	ATOM	2125	C	HIS	352C	76.420	66.662	30.161	1.00	42.57	C
25	ATOM	2126	O	HIS	352C	75.892	67.599	29.566	1.00	43.22	C
	ATOM	2127	N	ASP	353C	77.497	66.054	29.706	1.00	43.27	C
	ATOM	2128	CA	ASP	353C	78.093	66.519	28.481	1.00	44.00	C
	ATOM	2129	CB	ASP	353C	79.462	65.898	28.300	1.00	48.81	C
	ATOM	2130	CG	ASP	353C	80.514	66.940	28.110	1.00	54.39	C
30	ATOM	2131	OD1	ASP	353C	80.916	67.544	29.141	1.00	57.24	C
	ATOM	2132	OD2	ASP	353C	80.905	67.178	26.934	1.00	55.38	C
	ATOM	2133	C	ASP	353C	77.244	66.271	27.247	1.00	42.66	C
	ATOM	2134	O	ASP	353C	77.118	67.148	26.392	1.00	42.01	C
	ATOM	2135	N	ASP	354C	76.665	65.080	27.147	1.00	42.23	C
35	ATOM	2136	CA	ASP	354C	75.820	64.756	26.000	1.00	43.33	C
	ATOM	2137	CB	ASP	354C	75.252	63.342	26.132	1.00	42.16	C
	ATOM	2138	CG	ASP	354C	74.533	63.111	27.459	1.00	43.35	C
	ATOM	2139	OD1	ASP	354C	74.276	64.095	28.191	1.00	39.68	C
	ATOM	2140	OD2	ASP	354C	74.220	61.935	27.759	1.00	41.72	C
40	ATOM	2141	C	ASP	354C	74.666	65.748	25.842	1.00	44.05	C
	ATOM	2142	O	ASP	354C	74.166	65.953	24.733	1.00	46.89	C
	ATOM	2143	N	PHE	355C	74.259	66.373	26.947	1.00	42.64	C
	ATOM	2144	CA	PHE	355C	73.148	67.326	26.926	1.00	41.15	C
	ATOM	2145	CB	PHE	355C	72.685	67.642	28.363	1.00	38.40	C
45	ATOM	2146	CG	PHE	355C	71.417	68.448	28.430	1.00	33.95	C
	ATOM	2147	CD1	PHE	355C	70.177	67.828	28.354	1.00	35.87	C
	ATOM	2148	CD2	PHE	355C	71.463	69.832	28.530	1.00	35.35	C
	ATOM	2149	CE1	PHE	355C	68.997	68.578	28.373	1.00	32.94	C
	ATOM	2150	CE2	PHE	355C	70.290	70.588	28.548	1.00	32.91	C
50	ATOM	2151	CZ	PHE	355C	69.061	69.958	28.470	1.00	32.76	C
	ATOM	2152	C	PHE	355C	73.519	68.621	26.216	1.00	40.52	C
	ATOM	2153	O	PHE	355C	72.686	69.248	25.572	1.00	39.70	C
	ATOM	2154	N	LEU	356C	74.775	69.025	26.336	1.00	42.40	C
	ATOM	2155	CA	LEU	356C	75.224	70.263	25.706	1.00	42.80	C
55	ATOM	2156	CB	LEU	356C	76.690	70.503	26.056	1.00	42.98	C
	ATOM	2157	CG	LEU	356C	76.961	70.533	27.557	1.00	43.01	C
	ATOM	2158	CD1	LEU	356C	78.421	70.881	27.791	1.00	41.96	C
	ATOM	2159	CD2	LEU	356C	76.052	71.561	28.221	1.00	43.23	C
	ATOM	2160	C	LEU	356C	75.041	70.294	24.185	1.00	42.09	C

	ATOM	2161	O	LEU	356C	74.853	71.356	23.601	1.00	42.02	C
	ATOM	2162	N	HIS	357C	75.091	69.130	23.550	1.00	42.28	C
	ATOM	2163	CA	HIS	357C	74.939	69.052	22.099	1.00	44.19	C
	ATOM	2164	CB	HIS	357C	75.984	68.091	21.520	1.00	44.17	C
5	ATOM	2165	CG	HIS	357C	77.392	68.488	21.834	1.00	45.71	C
	ATOM	2166	CD2	HIS	357C	78.254	68.037	22.776	1.00	45.84	C
	ATOM	2167	ND1	HIS	357C	78.024	69.540	21.204	1.00	45.86	C
	ATOM	2168	CE1	HIS	357C	79.215	69.723	21.747	1.00	45.27	C
	ATOM	2169	NE2	HIS	357C	79.379	68.826	22.705	1.00	46.46	C
10	ATOM	2170	C	HIS	357C	73.538	68.603	21.689	1.00	42.94	C
	ATOM	2171	O	HIS	357C	73.323	68.176	20.555	1.00	41.95	C
	ATOM	2172	N	TYR	358C	72.589	68.698	22.616	1.00	41.10	C
	ATOM	2173	CA	TYR	358C	71.218	68.302	22.332	1.00	40.29	C
	ATOM	2174	CB	TYR	358C	70.338	68.537	23.554	1.00	38.69	C
15	ATOM	2175	CG	TYR	358C	68.862	68.353	23.277	1.00	36.05	C
	ATOM	2176	CD1	TYR	358C	68.288	67.083	23.251	1.00	34.16	C
	ATOM	2177	CE1	TYR	358C	66.922	66.921	23.009	1.00	33.09	C
	ATOM	2178	CD2	TYR	358C	68.043	69.453	23.043	1.00	33.51	C
	ATOM	2179	CE2	TYR	358C	66.688	69.301	22.795	1.00	32.71	C
20	ATOM	2180	CZ	TYR	358C	66.128	68.040	22.784	1.00	32.23	C
	ATOM	2181	OH	TYR	358C	64.772	67.908	22.579	1.00	31.66	C
	ATOM	2182	C	TYR	358C	70.633	69.075	21.148	1.00	40.78	C
	ATOM	2183	O	TYR	358C	70.770	70.289	21.056	1.00	39.99	C
	ATOM	2184	N	HIS	359C	69.970	68.369	20.246	1.00	41.39	C
25	ATOM	2185	CA	HIS	359C	69.363	69.029	19.098	1.00	42.70	C
	ATOM	2186	CB	HIS	359C	70.039	68.565	17.804	1.00	45.88	C
	ATOM	2187	CG	HIS	359C	71.409	69.138	17.613	1.00	49.58	C
	ATOM	2188	CD2	HIS	359C	72.638	68.603	17.813	1.00	52.11	C
	ATOM	2189	ND1	HIS	359C	71.617	70.447	17.237	1.00	52.14	C
30	ATOM	2190	CE1	HIS	359C	72.918	70.698	17.216	1.00	53.10	C
	ATOM	2191	NE2	HIS	359C	73.560	69.596	17.563	1.00	53.27	C
	ATOM	2192	C	HIS	359C	67.866	68.785	19.023	1.00	40.81	C
	ATOM	2193	O	HIS	359C	67.093	69.719	18.815	1.00	41.41	C
	ATOM	2194	N	SER	360C	67.455	67.538	19.219	1.00	38.69	C
35	ATOM	2195	CA	SER	360C	66.039	67.200	19.143	1.00	38.44	C
	ATOM	2196	CB	SER	360C	65.586	67.161	17.677	1.00	38.76	C
	ATOM	2197	OG	SER	360C	66.167	66.052	17.011	1.00	37.56	C
	ATOM	2198	C	SER	360C	65.778	65.844	19.766	1.00	36.82	C
	ATOM	2199	O	SER	360C	66.711	65.101	20.064	1.00	36.19	C
40	ATOM	2200	N	GLY	361C	64.500	65.522	19.944	1.00	36.23	C
	ATOM	2201	CA	GLY	361C	64.136	64.239	20.518	1.00	35.84	C
	ATOM	2202	C	GLY	361C	63.984	64.268	22.025	1.00	37.09	C
	ATOM	2203	O	GLY	361C	64.079	65.323	22.663	1.00	36.29	C
	ATOM	2204	N	ILE	362C	63.736	63.096	22.595	1.00	36.68	C
45	ATOM	2205	CA	ILE	362C	63.565	62.965	24.031	1.00	37.29	C
	ATOM	2206	CB	ILE	362C	62.546	61.868	24.352	1.00	38.61	C
	ATOM	2207	CG2	ILE	362C	62.254	61.847	25.855	1.00	36.48	C
	ATOM	2208	CG1	ILE	362C	61.269	62.120	23.547	1.00	37.04	C
	ATOM	2209	CD	ILE	362C	60.322	60.959	23.550	1.00	40.13	C
50	ATOM	2210	C	ILE	362C	64.902	62.600	24.656	1.00	38.07	C
	ATOM	2211	O	ILE	362C	65.364	61.469	24.519	1.00	38.57	C
	ATOM	2212	N	TYR	363C	65.519	63.562	25.336	1.00	38.58	C
	ATOM	2213	CA	TYR	363C	66.810	63.341	25.986	1.00	38.64	C
	ATOM	2214	CB	TYR	363C	67.326	64.652	26.597	1.00	37.75	C
55	ATOM	2215	CG	TYR	363C	68.606	64.516	27.408	1.00	38.84	C
	ATOM	2216	CD1	TYR	363C	69.850	64.405	26.787	1.00	35.65	C
	ATOM	2217	CE1	TYR	363C	71.016	64.252	27.532	1.00	36.50	C
	ATOM	2218	CD2	TYR	363C	68.561	64.475	28.804	1.00	39.21	C
	ATOM	2219	CE2	TYR	363C	69.719	64.325	29.562	1.00	39.25	C

	ATOM	2220	CZ	TYR	363C	70.944	64.210	28.921	1.00	38.64	C
	ATOM	2221	OH	TYR	363C	72.079	64.022	29.679	1.00	34.87	C
	ATOM	2222	C	TYR	363C	66.756	62.263	27.078	1.00	39.91	C
	ATOM	2223	O	TYR	363C	65.765	62.128	27.797	1.00	38.03	C
5	ATOM	2224	N	HIS	364C	67.841	61.497	27.166	1.00	42.59	C
	ATOM	2225	CA	HIS	364C	68.030	60.435	28.152	1.00	44.31	C
	ATOM	2226	CB	HIS	364C	67.431	59.106	27.687	1.00	46.90	C
	ATOM	2227	CG	HIS	364C	67.887	57.934	28.501	1.00	53.54	C
	ATOM	2228	CD2	HIS	364C	68.752	56.929	28.212	1.00	55.02	C
10	ATOM	2229	ND1	HIS	364C	67.515	57.750	29.819	1.00	55.47	C
	ATOM	2230	CE1	HIS	364C	68.131	56.685	30.305	1.00	56.21	C
	ATOM	2231	NE2	HIS	364C	68.888	56.169	29.351	1.00	56.01	C
	ATOM	2232	C	HIS	364C	69.544	60.288	28.246	1.00	44.39	C
	ATOM	2233	O	HIS	364C	70.205	60.032	27.239	1.00	44.84	C
15	ATOM	2234	N	HIS	365C	70.099	60.445	29.441	1.00	43.42	C
	ATOM	2235	CA	HIS	365C	71.545	60.348	29.598	1.00	42.69	C
	ATOM	2236	CB	HIS	365C	71.955	60.819	30.989	1.00	39.94	C
	ATOM	2237	CG	HIS	365C	73.433	60.842	31.197	1.00	41.23	C
	ATOM	2238	CD2	HIS	365C	74.217	60.207	32.099	1.00	40.47	C
20	ATOM	2239	ND1	HIS	365C	74.283	61.582	30.403	1.00	39.26	C
	ATOM	2240	CE1	HIS	365C	75.526	61.403	30.807	1.00	40.19	C
	ATOM	2241	NE2	HIS	365C	75.514	60.573	31.836	1.00	41.84	C
	ATOM	2242	C	HIS	365C	72.096	58.948	29.342	1.00	40.88	C
	ATOM	2243	O	HIS	365C	71.698	57.991	29.999	1.00	41.60	C
25	ATOM	2244	N	PRO	371C	67.073	57.430	58.294	1.00	51.20	C
	ATOM	2245	CD	PRO	371C	68.382	56.847	58.649	1.00	53.19	C
	ATOM	2246	CA	PRO	371C	67.155	58.894	58.221	1.00	51.16	C
	ATOM	2247	CB	PRO	371C	68.535	59.195	58.808	1.00	51.20	C
	ATOM	2248	CG	PRO	371C	69.338	57.999	58.377	1.00	52.17	C
30	ATOM	2249	C	PRO	371C	66.981	59.443	56.799	1.00	50.71	C
	ATOM	2250	O	PRO	371C	67.814	59.224	55.912	1.00	49.90	C
	ATOM	2251	N	PHE	372C	65.870	60.147	56.608	1.00	48.27	C
	ATOM	2252	CA	PHE	372C	65.505	60.765	55.347	1.00	46.41	C
	ATOM	2253	CB	PHE	372C	64.224	61.585	55.578	1.00	46.35	C
35	ATOM	2254	CG	PHE	372C	63.607	62.135	54.331	1.00	46.01	C
	ATOM	2255	CD1	PHE	372C	63.252	61.294	53.282	1.00	46.01	C
	ATOM	2256	CD2	PHE	372C	63.370	63.505	54.207	1.00	46.91	C
	ATOM	2257	CE1	PHE	372C	62.669	61.808	52.122	1.00	45.87	C
	ATOM	2258	CE2	PHE	372C	62.787	64.031	53.051	1.00	44.89	C
40	ATOM	2259	CZ	PHE	372C	62.437	63.180	52.008	1.00	45.28	C
	ATOM	2260	C	PHE	372C	66.653	61.653	54.831	1.00	45.41	C
	ATOM	2261	O	PHE	372C	67.344	62.308	55.611	1.00	44.79	C
	ATOM	2262	N	ASN	373C	66.866	61.643	53.518	1.00	44.27	C
	ATOM	2263	CA	ASN	373C	67.903	62.447	52.871	1.00	43.16	C
45	ATOM	2264	CB	ASN	373C	69.276	61.789	53.008	1.00	42.56	C
	ATOM	2265	CG	ASN	373C	70.401	62.698	52.533	1.00	45.24	C
	ATOM	2266	OD1	ASN	373C	70.189	63.580	51.696	1.00	43.59	C
	ATOM	2267	ND2	ASN	373C	71.603	62.482	53.058	1.00	45.60	C
	ATOM	2268	C	ASN	373C	67.524	62.525	51.393	1.00	41.57	C
50	ATOM	2269	O	ASN	373C	67.929	61.685	50.591	1.00	40.99	C
	ATOM	2270	N	PRO	374C	66.752	63.554	51.015	1.00	39.26	C
	ATOM	2271	CD	PRO	374C	66.303	64.669	51.866	1.00	38.14	C
	ATOM	2272	CA	PRO	374C	66.295	63.747	49.641	1.00	38.21	C
	ATOM	2273	CB	PRO	374C	65.125	64.701	49.823	1.00	38.13	C
55	ATOM	2274	CG	PRO	374C	65.661	65.618	50.860	1.00	37.83	C
	ATOM	2275	C	PRO	374C	67.305	64.293	48.643	1.00	37.32	C
	ATOM	2276	O	PRO	374C	66.970	64.465	47.478	1.00	37.66	C
	ATOM	2277	N	PHE	375C	68.531	64.561	49.077	1.00	35.76	C
	ATOM	2278	CA	PHE	375C	69.515	65.131	48.167	1.00	34.69	C

	ATOM	2279	CB	PHE	375C	70.881	65.270	48.844	1.00	32.58	C
	ATOM	2280	CG	PHE	375C	71.912	65.920	47.962	1.00	32.34	C
	ATOM	2281	CD1	PHE	375C	71.897	67.293	47.752	1.00	29.70	C
	ATOM	2282	CD2	PHE	375C	72.845	65.150	47.271	1.00	35.37	C
5	ATOM	2283	CE1	PHE	375C	72.789	67.891	46.864	1.00	33.69	C
	ATOM	2284	CE2	PHE	375C	73.743	65.738	46.377	1.00	34.52	C
	ATOM	2285	CZ	PHE	375C	73.712	67.110	46.174	1.00	33.16	C
	ATOM	2286	C	PHE	375C	69.710	64.412	46.829	1.00	34.40	C
	ATOM	2287	O	PHE	375C	69.834	63.189	46.765	1.00	32.75	C
10	ATOM	2288	N	GLU	376C	69.736	65.204	45.765	1.00	34.78	C
	ATOM	2289	CA	GLU	376C	69.957	64.718	44.410	1.00	36.20	C
	ATOM	2290	CB	GLU	376C	68.641	64.377	43.704	1.00	37.38	C
	ATOM	2291	CG	GLU	376C	68.036	63.032	44.076	1.00	39.75	C
	ATOM	2292	CD	GLU	376C	66.775	62.727	43.284	1.00	42.59	C
15	ATOM	2293	OE1	GLU	376C	66.822	62.810	42.036	1.00	44.21	C
	ATOM	2294	OE2	GLU	376C	65.735	62.406	43.906	1.00	44.97	C
	ATOM	2295	C	GLU	376C	70.642	65.853	43.682	1.00	37.49	C
	ATOM	2296	O	GLU	376C	70.054	66.913	43.483	1.00	38.70	C
	ATOM	2297	N	LEU	377C	71.891	65.622	43.295	1.00	38.78	C
20	ATOM	2298	CA	LEU	377C	72.713	66.612	42.602	1.00	38.64	C
	ATOM	2299	CB	LEU	377C	74.066	65.979	42.241	1.00	39.56	C
	ATOM	2300	CG	LEU	377C	75.092	66.774	41.416	1.00	43.61	C
	ATOM	2301	CD1	LEU	377C	75.825	67.757	42.301	1.00	42.89	C
	ATOM	2302	CD2	LEU	377C	76.097	65.817	40.791	1.00	43.68	C
25	ATOM	2303	C	LEU	377C	72.090	67.220	41.341	1.00	37.07	C
	ATOM	2304	O	LEU	377C	71.605	66.509	40.468	1.00	37.43	C
	ATOM	2305	N	THR	378C	72.118	68.544	41.257	1.00	36.15	C
	ATOM	2306	CA	THR	378C	71.619	69.262	40.089	1.00	37.08	C
	ATOM	2307	CB	THR	378C	70.255	69.942	40.349	1.00	36.22	C
30	ATOM	2308	OG1	THR	378C	70.387	70.863	41.435	1.00	40.81	C
	ATOM	2309	CG2	THR	378C	69.190	68.917	40.690	1.00	35.33	C
	ATOM	2310	C	THR	378C	72.653	70.351	39.824	1.00	36.36	C
	ATOM	2311	O	THR	378C	73.480	70.633	40.689	1.00	35.95	C
	ATOM	2312	N	ASN	379C	72.626	70.941	38.633	1.00	34.60	C
35	ATOM	2313	CA	ASN	379C	73.561	72.011	38.307	1.00	34.89	C
	ATOM	2314	CB	ASN	379C	74.902	71.466	37.768	1.00	34.18	C
	ATOM	2315	CG	ASN	379C	74.751	70.652	36.487	1.00	37.07	C
	ATOM	2316	OD1	ASN	379C	73.966	70.988	35.596	1.00	37.49	C
	ATOM	2317	ND2	ASN	379C	75.526	69.580	36.384	1.00	38.66	C
40	ATOM	2318	C	ASN	379C	72.967	72.983	37.305	1.00	35.66	C
	ATOM	2319	O	ASN	379C	73.684	73.793	36.723	1.00	38.17	C
	ATOM	2320	N	HIS	380C	71.658	72.913	37.103	1.00	36.29	C
	ATOM	2321	CA	HIS	380C	70.999	73.812	36.161	1.00	35.90	C
	ATOM	2322	CB	HIS	380C	71.168	73.277	34.733	1.00	35.84	C
45	ATOM	2323	CG	HIS	380C	70.774	74.249	33.667	1.00	33.97	C
	ATOM	2324	CD2	HIS	380C	70.011	74.097	32.560	1.00	37.47	C
	ATOM	2325	ND1	HIS	380C	71.207	75.557	33.656	1.00	36.68	C
	ATOM	2326	CE1	HIS	380C	70.725	76.170	32.590	1.00	37.18	C
	ATOM	2327	NE2	HIS	380C	69.997	75.306	31.907	1.00	36.47	C
50	ATOM	2328	C	HIS	380C	69.517	73.983	36.496	1.00	35.82	C
	ATOM	2329	O	HIS	380C	68.846	73.029	36.892	1.00	37.75	C
	ATOM	2330	N	ALA	381C	69.013	75.204	36.341	1.00	35.04	C
	ATOM	2331	CA	ALA	381C	67.616	75.497	36.623	1.00	34.17	C
	ATOM	2332	CB	ALA	381C	67.522	76.612	37.658	1.00	33.51	C
55	ATOM	2333	C	ALA	381C	66.876	75.893	35.343	1.00	33.72	C
	ATOM	2334	O	ALA	381C	67.319	76.773	34.608	1.00	35.08	C
	ATOM	2335	N	VAL	382C	65.749	75.236	35.087	1.00	33.30	C
	ATOM	2336	CA	VAL	382C	64.944	75.498	33.901	1.00	34.02	C
	ATOM	2337	CB	VAL	382C	65.211	74.429	32.829	1.00	33.11	C

	ATOM	2338	CG1	VAL	382C	66.623	74.596	32.285	1.00	33.78	C
	ATOM	2339	CG2	VAL	382C	65.046	73.037	33.432	1.00	31.36	C
	ATOM	2340	C	VAL	382C	63.445	75.538	34.211	1.00	35.93	C
	ATOM	2341	O	VAL	382C	63.027	75.259	35.334	1.00	35.98	C
5	ATOM	2342	N	LEU	383C	62.640	75.868	33.204	1.00	36.17	C
	ATOM	2343	CA	LEU	383C	61.200	75.972	33.374	1.00	34.99	C
	ATOM	2344	CB	LEU	383C	60.720	77.308	32.806	1.00	35.30	C
	ATOM	2345	CG	LEU	383C	59.275	77.740	33.087	1.00	34.59	C
	ATOM	2346	CD1	LEU	383C	59.083	78.027	34.574	1.00	31.88	C
10	ATOM	2347	CD2	LEU	383C	58.965	78.986	32.270	1.00	33.70	C
	ATOM	2348	C	LEU	383C	60.393	74.841	32.742	1.00	37.15	C
	ATOM	2349	O	LEU	383C	60.423	74.650	31.528	1.00	37.18	C
	ATOM	2350	N	LEU	384C	59.667	74.095	33.579	1.00	37.75	C
	ATOM	2351	CA	LEU	384C	58.813	73.004	33.111	1.00	37.23	C
15	ATOM	2352	CB	LEU	384C	58.288	72.184	34.289	1.00	36.86	C
	ATOM	2353	CG	LEU	384C	58.134	70.673	34.120	1.00	36.02	C
	ATOM	2354	CD1	LEU	384C	57.173	70.170	35.184	1.00	34.11	C
	ATOM	2355	CD2	LEU	384C	57.619	70.330	32.736	1.00	35.96	C
	ATOM	2356	C	LEU	384C	57.651	73.722	32.436	1.00	37.52	C
20	ATOM	2357	O	LEU	384C	57.075	74.641	33.017	1.00	39.15	C
	ATOM	2358	N	VAL	385C	57.309	73.308	31.222	1.00	35.20	C
	ATOM	2359	CA	VAL	385C	56.246	73.958	30.466	1.00	33.58	C
	ATOM	2360	CB	VAL	385C	56.864	74.686	29.230	1.00	34.43	C
	ATOM	2361	CG1	VAL	385C	55.836	74.893	28.151	1.00	37.82	C
25	ATOM	2362	CG2	VAL	385C	57.433	76.024	29.661	1.00	31.81	C
	ATOM	2363	C	VAL	385C	55.113	73.025	30.021	1.00	33.08	C
	ATOM	2364	O	VAL	385C	53.996	73.477	29.788	1.00	34.25	C
	ATOM	2365	N	GLY	386C	55.390	71.731	29.912	1.00	32.38	C
	ATOM	2366	CA	GLY	386C	54.357	70.804	29.484	1.00	32.74	C
30	ATOM	2367	C	GLY	386C	54.799	69.357	29.482	1.00	34.13	C
	ATOM	2368	O	GLY	386C	55.878	69.029	29.977	1.00	35.44	C
	ATOM	2369	N	TYR	387C	53.964	68.481	28.934	1.00	34.50	C
	ATOM	2370	CA	TYR	387C	54.297	67.061	28.866	1.00	37.00	C
	ATOM	2371	CB	TYR	387C	54.073	66.392	30.225	1.00	34.79	C
35	ATOM	2372	CG	TYR	387C	52.634	66.413	30.710	1.00	38.96	C
	ATOM	2373	CD1	TYR	387C	51.694	65.493	30.228	1.00	39.29	C
	ATOM	2374	CE1	TYR	387C	50.382	65.493	30.695	1.00	39.01	C
	ATOM	2375	CD2	TYR	387C	52.214	67.340	31.671	1.00	37.50	C
	ATOM	2376	CE2	TYR	387C	50.904	67.350	32.140	1.00	38.27	C
40	ATOM	2377	CZ	TYR	387C	49.996	66.428	31.649	1.00	40.42	C
	ATOM	2378	OH	TYR	387C	48.695	66.458	32.092	1.00	42.07	C
	ATOM	2379	C	TYR	387C	53.495	66.340	27.791	1.00	38.16	C
	ATOM	2380	O	TYR	387C	52.449	66.820	27.343	1.00	40.01	C
	ATOM	2381	N	GLY	388C	53.995	65.182	27.377	1.00	39.62	C
45	ATOM	2382	CA	GLY	388C	53.320	64.409	26.356	1.00	39.94	C
	ATOM	2383	C	GLY	388C	53.849	62.993	26.316	1.00	42.99	C
	ATOM	2384	O	GLY	388C	54.432	62.503	27.286	1.00	41.97	C
	ATOM	2385	N	LYS	389C	53.643	62.332	25.187	1.00	46.05	C
	ATOM	2386	CA	LYS	389C	54.090	60.958	25.002	1.00	48.44	C
50	ATOM	2387	CB	LYS	389C	52.987	59.988	25.449	1.00	48.57	C
	ATOM	2388	CG	LYS	389C	53.256	58.530	25.115	1.00	50.12	C
	ATOM	2389	CD	LYS	389C	52.110	57.629	25.574	1.00	51.35	C
	ATOM	2390	CE	LYS	389C	52.042	57.534	27.110	1.00	52.41	C
	ATOM	2391	NZ	LYS	389C	51.058	56.510	27.587	1.00	51.63	C
55	ATOM	2392	C	LYS	389C	54.386	60.765	23.520	1.00	50.08	C
	ATOM	2393	O	LYS	389C	53.513	61.008	22.682	1.00	50.05	C
	ATOM	2394	N	ASP	390C	55.608	60.348	23.186	1.00	52.67	C
	ATOM	2395	CA	ASP	390C	55.941	60.142	21.779	1.00	57.00	C
	ATOM	2396	CB	ASP	390C	57.367	59.626	21.601	1.00	59.32	C

	ATOM	2397	CG	ASP	390C	57.815	59.650	20.133	1.00	62.88	C
	ATOM	2398	OD1	ASP	390C	59.014	59.946	19.879	1.00	62.92	C
	ATOM	2399	OD2	ASP	390C	56.968	59.368	19.241	1.00	62.85	C
	ATOM	2400	C	ASP	390C	54.947	59.132	21.220	1.00	58.35	C
5	ATOM	2401	O	ASP	390C	54.756	58.052	21.791	1.00	58.86	C
	ATOM	2402	N	PRO	391C	54.295	59.475	20.100	1.00	59.35	C
	ATOM	2403	CD	PRO	391C	54.454	60.739	19.356	1.00	59.43	C
	ATOM	2404	CA	PRO	391C	53.301	58.607	19.458	1.00	61.35	C
	ATOM	2405	CB	PRO	391C	52.628	59.545	18.457	1.00	60.57	C
10	ATOM	2406	CG	PRO	391C	53.777	60.434	18.031	1.00	60.17	C
	ATOM	2407	C	PRO	391C	53.827	57.322	18.807	1.00	62.66	C
	ATOM	2408	O	PRO	391C	53.036	56.420	18.481	1.00	63.66	C
	ATOM	2409	N	VAL	392C	55.142	57.216	18.625	1.00	62.85	C
	ATOM	2410	CA	VAL	392C	55.689	56.014	18.008	1.00	63.40	C
15	ATOM	2411	CB	VAL	392C	56.779	56.359	16.973	1.00	65.21	C
	ATOM	2412	CG1	VAL	392C	57.155	55.107	16.190	1.00	66.11	C
	ATOM	2413	CG2	VAL	392C	56.277	57.449	16.020	1.00	64.46	C
	ATOM	2414	C	VAL	392C	56.272	55.092	19.067	1.00	63.33	C
	ATOM	2415	O	VAL	392C	55.862	53.937	19.204	1.00	65.13	C
20	ATOM	2416	N	THR	393C	57.235	55.589	19.825	1.00	62.90	C
	ATOM	2417	CA	THR	393C	57.826	54.776	20.880	1.00	62.30	C
	ATOM	2418	CB	THR	393C	59.114	55.391	21.369	1.00	63.21	C
	ATOM	2419	OG1	THR	393C	58.800	56.596	22.085	1.00	64.38	C
	ATOM	2420	CG2	THR	393C	60.023	55.719	20.174	1.00	63.53	C
25	ATOM	2421	C	THR	393C	56.881	54.682	22.081	1.00	61.17	C
	ATOM	2422	O	THR	393C	56.814	53.647	22.742	1.00	62.24	C
	ATOM	2423	N	GLY	394C	56.157	55.761	22.369	1.00	59.39	C
	ATOM	2424	CA	GLY	394C	55.246	55.753	23.506	1.00	56.42	C
	ATOM	2425	C	GLY	394C	55.950	56.251	24.759	1.00	55.12	C
30	ATOM	2426	O	GLY	394C	55.474	56.055	25.883	1.00	55.56	C
	ATOM	2427	N	LEU	395C	57.090	56.909	24.545	1.00	52.18	C
	ATOM	2428	CA	LEU	395C	57.927	57.461	25.604	1.00	48.93	C
	ATOM	2429	CB	LEU	395C	59.324	57.724	25.047	1.00	51.90	C
	ATOM	2430	CG	LEU	395C	60.477	56.872	25.576	1.00	55.53	C
35	ATOM	2431	CD1	LEU	395C	61.799	57.352	24.954	1.00	54.99	C
	ATOM	2432	CD2	LEU	395C	60.521	56.970	27.114	1.00	56.10	C
	ATOM	2433	C	LEU	395C	57.422	58.759	26.252	1.00	45.88	C
	ATOM	2434	O	LEU	395C	57.415	59.815	25.617	1.00	43.86	C
	ATOM	2435	N	ASP	396C	57.028	58.688	27.521	1.00	41.65	C
40	ATOM	2436	CA	ASP	396C	56.576	59.877	28.236	1.00	40.06	C
	ATOM	2437	CB	ASP	396C	56.083	59.493	29.636	1.00	39.93	C
	ATOM	2438	CG	ASP	396C	54.794	58.704	29.602	1.00	41.39	C
	ATOM	2439	OD1	ASP	396C	54.313	58.413	28.483	1.00	43.90	C
	ATOM	2440	OD2	ASP	396C	54.257	58.377	30.685	1.00	39.54	C
45	ATOM	2441	C	ASP	396C	57.725	60.890	28.360	1.00	38.18	C
	ATOM	2442	O	ASP	396C	58.868	60.520	28.643	1.00	38.26	C
	ATOM	2443	N	TYR	397C	57.426	62.166	28.145	1.00	36.37	C
	ATOM	2444	CA	TYR	397C	58.454	63.201	28.245	1.00	35.60	C
	ATOM	2445	CB	TYR	397C	59.027	63.535	26.863	1.00	35.29	C
50	ATOM	2446	CG	TYR	397C	57.997	64.021	25.865	1.00	37.54	C
	ATOM	2447	CD1	TYR	397C	57.405	63.140	24.959	1.00	39.42	C
	ATOM	2448	CE1	TYR	397C	56.439	63.571	24.058	1.00	40.06	C
	ATOM	2449	CD2	TYR	397C	57.594	65.355	25.842	1.00	39.16	C
	ATOM	2450	CE2	TYR	397C	56.622	65.801	24.945	1.00	42.00	C
55	ATOM	2451	CZ	TYR	397C	56.049	64.899	24.056	1.00	42.61	C
	ATOM	2452	OH	TYR	397C	55.076	65.322	23.182	1.00	43.60	C
	ATOM	2453	C	TYR	397C	57.941	64.486	28.880	1.00	35.33	C
	ATOM	2454	O	TYR	397C	56.741	64.654	29.082	1.00	35.61	C
	ATOM	2455	N	TRP	398C	58.871	65.381	29.202	1.00	33.78	C

	ATOM	2456	CA	TRP	398C	58.536	66.681	29.771	1.00	33.69	C
	ATOM	2457	CB	TRP	398C	59.348	66.989	31.043	1.00	32.40	C
	ATOM	2458	CG	TRP	398C	59.025	66.183	32.279	1.00	33.79	C
	ATOM	2459	CD2	TRP	398C	57.832	66.255	33.079	1.00	32.93	C
5	ATOM	2460	CE2	TRP	398C	58.001	65.360	34.160	1.00	34.17	C
	ATOM	2461	CE3	TRP	398C	56.638	66.988	32.986	1.00	33.92	C
	ATOM	2462	CD1	TRP	398C	59.838	65.274	32.893	1.00	33.56	C
	ATOM	2463	NE1	TRP	398C	59.232	64.777	34.020	1.00	34.54	C
	ATOM	2464	CZ2	TRP	398C	57.021	65.176	35.146	1.00	35.04	C
10	ATOM	2465	CZ3	TRP	398C	55.659	66.805	33.968	1.00	32.81	C
	ATOM	2466	CH2	TRP	398C	55.859	65.905	35.033	1.00	34.74	C
	ATOM	2467	C	TRP	398C	58.955	67.678	28.701	1.00	34.71	C
	ATOM	2468	O	TRP	398C	59.851	67.389	27.910	1.00	34.73	C
	ATOM	2469	N	ILE	399C	58.304	68.837	28.668	1.00	35.69	C
15	ATOM	2470	CA	ILE	399C	58.657	69.889	27.722	1.00	36.37	C
	ATOM	2471	CB	ILE	399C	57.420	70.424	26.982	1.00	36.84	C
	ATOM	2472	CG2	ILE	399C	57.836	71.494	25.977	1.00	35.99	C
	ATOM	2473	CG1	ILE	399C	56.704	69.267	26.282	1.00	35.72	C
	ATOM	2474	CD	ILE	399C	55.405	69.661	25.612	1.00	34.98	C
20	ATOM	2475	C	ILE	399C	59.249	70.978	28.609	1.00	37.39	C
	ATOM	2476	O	ILE	399C	58.550	71.555	29.443	1.00	36.68	C
	ATOM	2477	N	VAL	400C	60.544	71.243	28.436	1.00	37.66	C
	ATOM	2478	CA	VAL	400C	61.243	72.217	29.259	1.00	36.38	C
	ATOM	2479	CB	VAL	400C	62.362	71.514	30.074	1.00	35.76	C
25	ATOM	2480	CG1	VAL	400C	62.906	72.445	31.137	1.00	33.36	C
	ATOM	2481	CG2	VAL	400C	61.825	70.242	30.701	1.00	31.55	C
	ATOM	2482	C	VAL	400C	61.848	73.392	28.490	1.00	38.40	C
	ATOM	2483	O	VAL	400C	62.341	73.239	27.367	1.00	38.34	C
	ATOM	2484	N	LYS	401C	61.810	74.564	29.125	1.00	39.07	C
30	ATOM	2485	CA	LYS	401C	62.333	75.801	28.553	1.00	38.53	C
	ATOM	2486	CB	LYS	401C	61.386	76.963	28.879	1.00	36.94	C
	ATOM	2487	CG	LYS	401C	61.786	78.296	28.279	1.00	38.13	C
	ATOM	2488	CD	LYS	401C	60.868	79.417	28.754	1.00	35.72	C
	ATOM	2489	CE	LYS	401C	61.312	80.754	28.200	1.00	35.53	C
35	ATOM	2490	NZ	LYS	401C	60.401	81.865	28.596	1.00	34.61	C
	ATOM	2491	C	LYS	401C	63.730	76.110	29.089	1.00	38.85	C
	ATOM	2492	O	LYS	401C	63.905	76.379	30.286	1.00	38.30	C
	ATOM	2493	N	ASN	402C	64.722	76.068	28.198	1.00	38.02	C
	ATOM	2494	CA	ASN	402C	66.099	76.352	28.583	1.00	37.30	C
40	ATOM	2495	CB	ASN	402C	67.085	75.592	27.685	1.00	36.54	C
	ATOM	2496	CG	ASN	402C	68.365	75.181	28.422	1.00	36.91	C
	ATOM	2497	OD1	ASN	402C	68.741	75.782	29.428	1.00	37.33	C
	ATOM	2498	ND2	ASN	402C	69.041	74.159	27.907	1.00	34.90	C
	ATOM	2499	C	ASN	402C	66.357	77.854	28.469	1.00	37.54	C
45	ATOM	2500	O	ASN	402C	65.501	78.611	28.008	1.00	37.86	C
	ATOM	2501	N	SER	403C	67.546	78.275	28.891	1.00	38.10	C
	ATOM	2502	CA	SER	403C	67.938	79.679	28.847	1.00	38.42	C
	ATOM	2503	CB	SER	403C	68.015	80.243	30.273	1.00	36.80	C
	ATOM	2504	OG	SER	403C	68.835	79.443	31.105	1.00	32.67	C
50	ATOM	2505	C	SER	403C	69.283	79.872	28.126	1.00	38.77	C
	ATOM	2506	O	SER	403C	70.163	80.600	28.595	1.00	39.01	C
	ATOM	2507	N	TRP	404C	69.431	79.217	26.980	1.00	39.84	C
	ATOM	2508	CA	TRP	404C	70.659	79.315	26.195	1.00	40.56	C
	ATOM	2509	CB	TRP	404C	71.384	77.964	26.147	1.00	38.71	C
55	ATOM	2510	CG	TRP	404C	71.738	77.390	27.484	1.00	35.36	C
	ATOM	2511	CD2	TRP	404C	72.054	76.025	27.766	1.00	35.42	C
	ATOM	2512	CE2	TRP	404C	72.358	75.942	29.147	1.00	35.00	C
	ATOM	2513	CE3	TRP	404C	72.115	74.858	26.985	1.00	34.80	C
	ATOM	2514	CD1	TRP	404C	71.860	78.066	28.668	1.00	35.70	C

	ATOM	2515	NE1	TRP	404C	72.231	77.202	29.671	1.00	36.18	C
	ATOM	2516	CZ2	TRP	404C	72.716	74.738	29.768	1.00	33.90	C
	ATOM	2517	CZ3	TRP	404C	72.472	73.659	27.600	1.00	33.91	C
	ATOM	2518	CH2	TRP	404C	72.767	73.610	28.982	1.00	34.18	C
5	ATOM	2519	C	TRP	404C	70.355	79.760	24.771	1.00	41.05	C
	ATOM	2520	O	TRP	404C	70.961	79.264	23.821	1.00	44.10	C
	ATOM	2521	N	GLY	405C	69.416	80.688	24.627	1.00	41.16	C
	ATOM	2522	CA	GLY	405C	69.050	81.172	23.311	1.00	39.79	C
	ATOM	2523	C	GLY	405C	68.062	80.269	22.595	1.00	41.33	C
10	ATOM	2524	O	GLY	405C	67.989	79.067	22.845	1.00	38.14	C
	ATOM	2525	N	SER	406C	67.292	80.863	21.693	1.00	43.65	C
	ATOM	2526	CA	SER	406C	66.301	80.130	20.917	1.00	46.77	C
	ATOM	2527	CB	SER	406C	65.296	81.107	20.308	1.00	47.34	C
	ATOM	2528	OG	SER	406C	65.979	82.194	19.702	1.00	48.75	C
15	ATOM	2529	C	SER	406C	66.988	79.352	19.808	1.00	48.33	C
	ATOM	2530	O	SER	406C	66.343	78.645	19.037	1.00	48.81	C
	ATOM	2531	N	GLN	407C	68.306	79.465	19.744	1.00	50.58	C
	ATOM	2532	CA	GLN	407C	69.073	78.785	18.714	1.00	53.44	C
	ATOM	2533	CB	GLN	407C	70.294	79.649	18.377	1.00	58.12	C
20	ATOM	2534	CG	GLN	407C	70.963	79.366	17.032	1.00	64.69	C
	ATOM	2535	CD	GLN	407C	72.132	80.322	16.747	1.00	68.94	C
	ATOM	2536	OE1	GLN	407C	71.933	81.546	16.602	1.00	69.93	C
	ATOM	2537	NE2	GLN	407C	73.357	79.770	16.670	1.00	68.46	C
	ATOM	2538	C	GLN	407C	69.494	77.377	19.167	1.00	52.34	C
25	ATOM	2539	O	GLN	407C	69.819	76.521	18.342	1.00	53.06	C
	ATOM	2540	N	TRP	408C	69.466	77.141	20.477	1.00	50.52	C
	ATOM	2541	CA	TRP	408C	69.842	75.847	21.070	1.00	47.15	C
	ATOM	2542	CB	TRP	408C	70.407	76.069	22.480	1.00	47.62	C
	ATOM	2543	CG	TRP	408C	70.822	74.802	23.185	1.00	45.42	C
30	ATOM	2544	CD2	TRP	408C	69.981	73.941	23.961	1.00	44.59	C
	ATOM	2545	CE2	TRP	408C	70.781	72.860	24.397	1.00	45.35	C
	ATOM	2546	CE3	TRP	408C	68.625	73.974	24.327	1.00	43.59	C
	ATOM	2547	CD1	TRP	408C	72.060	74.230	23.182	1.00	44.59	C
	ATOM	2548	NE1	TRP	408C	72.045	73.062	23.906	1.00	44.36	C
35	ATOM	2549	CZ2	TRP	408C	70.269	71.816	25.185	1.00	44.10	C
	ATOM	2550	CZ3	TRP	408C	68.116	72.934	25.109	1.00	43.37	C
	ATOM	2551	CH2	TRP	408C	68.940	71.871	25.528	1.00	44.52	C
	ATOM	2552	C	TRP	408C	68.655	74.875	21.159	1.00	45.08	C
	ATOM	2553	O	TRP	408C	67.507	75.299	21.302	1.00	43.86	C
40	ATOM	2554	N	GLY	409C	68.945	73.575	21.095	1.00	42.82	C
	ATOM	2555	CA	GLY	409C	67.901	72.562	21.164	1.00	43.46	C
	ATOM	2556	C	GLY	409C	66.749	72.757	20.180	1.00	43.66	C
	ATOM	2557	O	GLY	409C	66.956	73.124	19.020	1.00	44.21	C
	ATOM	2558	N	GLU	410C	65.529	72.497	20.638	1.00	41.49	C
45	ATOM	2559	CA	GLU	410C	64.350	72.662	19.800	1.00	40.52	C
	ATOM	2560	CB	GLU	410C	63.327	71.561	20.113	1.00	40.01	C
	ATOM	2561	CG	GLU	410C	63.920	70.154	20.007	1.00	41.69	C
	ATOM	2562	CD	GLU	410C	62.902	69.039	20.215	1.00	43.58	C
	ATOM	2563	OE1	GLU	410C	62.101	69.125	21.167	1.00	44.12	C
50	ATOM	2564	OE2	GLU	410C	62.912	68.058	19.435	1.00	46.45	C
	ATOM	2565	C	GLU	410C	63.759	74.059	20.036	1.00	40.34	C
	ATOM	2566	O	GLU	410C	62.820	74.236	20.814	1.00	39.21	C
	ATOM	2567	N	SER	411C	64.349	75.044	19.362	1.00	39.75	C
	ATOM	2568	CA	SER	411C	63.934	76.441	19.441	1.00	39.86	C
55	ATOM	2569	CB	SER	411C	62.516	76.607	18.880	1.00	40.77	C
	ATOM	2570	OG	SER	411C	62.361	75.880	17.668	1.00	40.69	C
	ATOM	2571	C	SER	411C	63.985	76.961	20.870	1.00	39.90	C
	ATOM	2572	O	SER	411C	63.092	77.678	21.308	1.00	40.37	C
	ATOM	2573	N	GLY	412C	65.037	76.596	21.592	1.00	39.58	C

	ATOM	2574	CA	GLY	412C	65.181	77.047	22.962	1.00	39.11	C
	ATOM	2575	C	GLY	412C	64.671	76.042	23.980	1.00	38.97	C
	ATOM	2576	O	GLY	412C	64.978	76.155	25.169	1.00	38.82	C
	ATOM	2577	N	TYR	413C	63.891	75.068	23.511	1.00	37.74	C
5	ATOM	2578	CA	TYR	413C	63.326	74.034	24.375	1.00	38.61	C
	ATOM	2579	CB	TYR	413C	61.815	73.860	24.130	1.00	37.31	C
	ATOM	2580	CG	TYR	413C	60.968	75.035	24.543	1.00	39.20	C
	ATOM	2581	CD1	TYR	413C	60.881	76.173	23.739	1.00	39.62	C
	ATOM	2582	CE1	TYR	413C	60.125	77.277	24.127	1.00	40.57	C
10	ATOM	2583	CD2	TYR	413C	60.274	75.026	25.755	1.00	38.25	C
	ATOM	2584	CE2	TYR	413C	59.516	76.126	26.156	1.00	40.64	C
	ATOM	2585	CZ	TYR	413C	59.450	77.247	25.337	1.00	41.06	C
	ATOM	2586	OH	TYR	413C	58.728	78.344	25.731	1.00	39.50	C
	ATOM	2587	C	TYR	413C	63.969	72.680	24.167	1.00	38.81	C
15	ATOM	2588	O	TYR	413C	64.744	72.473	23.236	1.00	40.05	C
	ATOM	2589	N	PHE	414C	63.625	71.752	25.050	1.00	39.10	C
	ATOM	2590	CA	PHE	414C	64.118	70.394	24.954	1.00	36.68	C
	ATOM	2591	CB	PHE	414C	65.503	70.275	25.613	1.00	34.28	C
	ATOM	2592	CG	PHE	414C	65.487	70.290	27.114	1.00	33.79	C
20	ATOM	2593	CD1	PHE	414C	65.338	69.110	27.832	1.00	32.09	C
	ATOM	2594	CD2	PHE	414C	65.679	71.477	27.814	1.00	34.20	C
	ATOM	2595	CE1	PHE	414C	65.389	69.106	29.219	1.00	31.45	C
	ATOM	2596	CE2	PHE	414C	65.732	71.483	29.210	1.00	33.49	C
	ATOM	2597	CZ	PHE	414C	65.588	70.296	29.910	1.00	32.79	C
25	ATOM	2598	C	PHE	414C	63.102	69.455	25.593	1.00	37.28	C
	ATOM	2599	O	PHE	414C	62.380	69.834	26.515	1.00	36.20	C
	ATOM	2600	N	ARG	415C	63.024	68.242	25.061	1.00	38.22	C
	ATOM	2601	CA	ARG	415C	62.113	67.220	25.560	1.00	38.66	C
	ATOM	2602	CB	ARG	415C	61.509	66.428	24.397	1.00	40.09	C
30	ATOM	2603	CG	ARG	415C	60.000	66.461	24.263	1.00	40.22	C
	ATOM	2604	CD	ARG	415C	59.546	67.281	23.054	1.00	41.58	C
	ATOM	2605	NE	ARG	415C	60.280	66.939	21.837	1.00	43.62	C
	ATOM	2606	CZ	ARG	415C	60.110	65.824	21.125	1.00	44.94	C
	ATOM	2607	NH1	ARG	415C	59.213	64.913	21.487	1.00	44.20	C
35	ATOM	2608	NH2	ARG	415C	60.866	65.609	20.055	1.00	45.25	C
	ATOM	2609	C	ARG	415C	62.997	66.295	26.377	1.00	38.49	C
	ATOM	2610	O	ARG	415C	64.102	65.967	25.952	1.00	39.43	C
	ATOM	2611	N	ILE	416C	62.529	65.875	27.543	1.00	38.28	C
	ATOM	2612	CA	ILE	416C	63.315	64.978	28.374	1.00	36.26	C
40	ATOM	2613	CB	ILE	416C	63.971	65.730	29.553	1.00	36.74	C
	ATOM	2614	CG2	ILE	416C	62.889	66.244	30.507	1.00	36.95	C
	ATOM	2615	CG1	ILE	416C	64.952	64.804	30.284	1.00	35.75	C
	ATOM	2616	CD	ILE	416C	65.881	65.516	31.258	1.00	31.47	C
	ATOM	2617	C	ILE	416C	62.423	63.869	28.898	1.00	36.06	C
45	ATOM	2618	O	ILE	416C	61.229	64.056	29.087	1.00	36.68	C
	ATOM	2619	N	ARG	417C	63.013	62.707	29.124	1.00	38.25	C
	ATOM	2620	CA	ARG	417C	62.267	61.558	29.605	1.00	40.17	C
	ATOM	2621	CB	ARG	417C	63.214	60.369	29.776	1.00	44.10	C
	ATOM	2622	CG	ARG	417C	62.519	59.054	30.070	1.00	48.61	C
50	ATOM	2623	CD	ARG	417C	63.481	57.883	29.904	1.00	52.98	C
	ATOM	2624	NE	ARG	417C	63.966	57.759	28.527	1.00	55.54	C
	ATOM	2625	CZ	ARG	417C	64.580	56.675	28.052	1.00	57.09	C
	ATOM	2626	NH1	ARG	417C	64.783	55.622	28.849	1.00	55.64	C
	ATOM	2627	NH2	ARG	417C	64.982	56.635	26.783	1.00	56.47	C
55	ATOM	2628	C	ARG	417C	61.531	61.847	30.910	1.00	39.45	C
	ATOM	2629	O	ARG	417C	62.077	62.457	31.834	1.00	37.39	C
	ATOM	2630	N	ARG	418C	60.287	61.390	30.972	1.00	38.34	C
	ATOM	2631	CA	ARG	418C	59.437	61.602	32.130	1.00	37.76	C
	ATOM	2632	CB	ARG	418C	58.162	62.323	31.688	1.00	38.54	C

	ATOM	2633	CG	ARG	418C	57.008	62.300	32.691	1.00	39.33	C
	ATOM	2634	CD	ARG	418C	55.944	63.332	32.316	1.00	36.59	C
	ATOM	2635	NE	ARG	418C	55.291	63.030	31.049	1.00	37.34	C
	ATOM	2636	CZ	ARG	418C	54.166	62.328	30.937	1.00	37.24	C
5	ATOM	2637	NH1	ARG	418C	53.563	61.849	32.022	1.00	35.31	C
	ATOM	2638	NH2	ARG	418C	53.638	62.115	29.740	1.00	34.07	C
	ATOM	2639	C	ARG	418C	59.072	60.325	32.862	1.00	38.33	C
	ATOM	2640	O	ARG	418C	58.883	59.274	32.248	1.00	39.03	C
	ATOM	2641	N	GLY	419C	58.977	60.423	34.185	1.00	38.88	C
10	ATOM	2642	CA	GLY	419C	58.597	59.275	34.989	1.00	38.85	C
	ATOM	2643	C	GLY	419C	59.732	58.458	35.566	1.00	39.20	C
	ATOM	2644	O	GLY	419C	59.481	57.494	36.290	1.00	40.52	C
	ATOM	2645	N	THR	420C	60.973	58.830	35.259	1.00	38.50	C
	ATOM	2646	CA	THR	420C	62.134	58.099	35.765	1.00	37.34	C
15	ATOM	2647	CB	THR	420C	62.864	57.341	34.621	1.00	38.23	C
	ATOM	2648	OG1	THR	420C	63.386	58.278	33.671	1.00	39.26	C
	ATOM	2649	CG2	THR	420C	61.905	56.403	33.903	1.00	38.55	C
	ATOM	2650	C	THR	420C	63.139	59.025	36.449	1.00	37.35	C
	ATOM	2651	O	THR	420C	64.326	58.714	36.526	1.00	36.44	C
20	ATOM	2652	N	ASP	421C	62.658	60.163	36.941	1.00	37.25	C
	ATOM	2653	CA	ASP	421C	63.512	61.137	37.610	1.00	37.59	C
	ATOM	2654	CB	ASP	421C	63.793	60.685	39.047	1.00	35.28	C
	ATOM	2655	CG	ASP	421C	64.553	61.719	39.850	1.00	35.10	C
	ATOM	2656	OD1	ASP	421C	64.267	62.929	39.721	1.00	34.32	C
25	ATOM	2657	OD2	ASP	421C	65.437	61.314	40.629	1.00	37.00	C
	ATOM	2658	C	ASP	421C	64.814	61.295	36.828	1.00	39.20	C
	ATOM	2659	O	ASP	421C	65.906	61.339	37.402	1.00	40.60	C
	ATOM	2660	N	GLU	422C	64.673	61.367	35.506	1.00	38.16	C
	ATOM	2661	CA	GLU	422C	65.798	61.522	34.593	1.00	36.93	C
30	ATOM	2662	CB	GLU	422C	65.264	61.745	33.175	1.00	38.17	C
	ATOM	2663	CG	GLU	422C	66.328	62.054	32.144	1.00	38.33	C
	ATOM	2664	CD	GLU	422C	67.231	60.876	31.855	1.00	38.95	C
	ATOM	2665	OE1	GLU	422C	68.456	61.085	31.793	1.00	43.49	C
	ATOM	2666	OE2	GLU	422C	66.728	59.749	31.677	1.00	39.55	C
35	ATOM	2667	C	GLU	422C	66.703	62.687	34.998	1.00	36.05	C
	ATOM	2668	O	GLU	422C	66.287	63.848	34.971	1.00	35.09	C
	ATOM	2669	N	CYS	423C	67.944	62.372	35.363	1.00	35.10	C
	ATOM	2670	CA	CYS	423C	68.898	63.390	35.774	1.00	33.64	C
	ATOM	2671	CB	CYS	423C	69.263	64.284	34.583	1.00	36.64	C
40	ATOM	2672	SG	CYS	423C	70.162	63.434	33.262	1.00	39.23	C
	ATOM	2673	C	CYS	423C	68.361	64.254	36.916	1.00	33.57	C
	ATOM	2674	O	CYS	423C	68.627	65.451	36.970	1.00	33.36	C
	ATOM	2675	N	ALA	424C	67.603	63.637	37.817	1.00	32.90	C
	ATOM	2676	CA	ALA	424C	67.028	64.320	38.975	1.00	33.91	C
45	ATOM	2677	CB	ALA	424C	68.155	64.845	39.875	1.00	31.78	C
	ATOM	2678	C	ALA	424C	66.053	65.457	38.633	1.00	33.09	C
	ATOM	2679	O	ALA	424C	65.769	66.311	39.471	1.00	31.34	C
	ATOM	2680	N	ILE	425C	65.515	65.453	37.419	1.00	32.10	C
	ATOM	2681	CA	ILE	425C	64.607	66.519	37.028	1.00	31.92	C
50	ATOM	2682	CB	ILE	425C	64.414	66.564	35.499	1.00	30.21	C
	ATOM	2683	CG2	ILE	425C	63.406	65.526	35.054	1.00	28.22	C
	ATOM	2684	CG1	ILE	425C	63.967	67.966	35.098	1.00	29.83	C
	ATOM	2685	CD	ILE	425C	63.994	68.227	33.618	1.00	33.99	C
	ATOM	2686	C	ILE	425C	63.252	66.452	37.716	1.00	32.80	C
55	ATOM	2687	O	ILE	425C	62.454	67.374	37.607	1.00	33.54	C
	ATOM	2688	N	GLU	426C	63.001	65.364	38.433	1.00	32.54	C
	ATOM	2689	CA	GLU	426C	61.745	65.193	39.158	1.00	33.10	C
	ATOM	2690	CB	GLU	426C	61.088	63.867	38.757	1.00	32.43	C
	ATOM	2691	CG	GLU	426C	60.264	63.942	37.474	1.00	32.88	C

	ATOM	2692	CD	GLU	426C	60.111	62.597	36.769	1.00	33.47	C
	ATOM	2693	OE1	GLU	426C	60.196	61.538	37.435	1.00	31.63	C
	ATOM	2694	OE2	GLU	426C	59.895	62.607	35.540	1.00	32.49	C
	ATOM	2695	C	GLU	426C	62.003	65.220	40.667	1.00	33.04	C
5	ATOM	2696	O	GLU	426C	61.196	64.733	41.451	1.00	34.57	C
	ATOM	2697	N	SER	427C	63.118	65.826	41.062	1.00	33.79	C
	ATOM	2698	CA	SER	427C	63.522	65.898	42.465	1.00	32.57	C
	ATOM	2699	CB	SER	427C	65.021	65.596	42.579	1.00	33.62	C
	ATOM	2700	OG	SER	427C	65.792	66.666	42.046	1.00	29.81	C
10	ATOM	2701	C	SER	427C	63.268	67.211	43.211	1.00	33.11	C
	ATOM	2702	O	SER	427C	63.131	67.209	44.437	1.00	31.34	C
	ATOM	2703	N	ILE	428C	63.207	68.331	42.495	1.00	32.74	C
	ATOM	2704	CA	ILE	428C	63.044	69.597	43.184	1.00	30.96	C
	ATOM	2705	CB	ILE	428C	64.453	70.150	43.554	1.00	31.66	C
15	ATOM	2706	CG2	ILE	428C	65.229	70.505	42.291	1.00	31.09	C
	ATOM	2707	CG1	ILE	428C	64.331	71.338	44.503	1.00	32.06	C
	ATOM	2708	CD	ILE	428C	65.631	71.692	45.175	1.00	31.49	C
	ATOM	2709	C	ILE	428C	62.209	70.669	42.487	1.00	31.43	C
	ATOM	2710	O	ILE	428C	62.589	71.837	42.436	1.00	31.97	C
20	ATOM	2711	N	ALA	429C	61.056	70.271	41.965	1.00	31.32	C
	ATOM	2712	CA	ALA	429C	60.160	71.219	41.314	1.00	30.95	C
	ATOM	2713	CB	ALA	429C	58.931	70.495	40.748	1.00	25.72	C
	ATOM	2714	C	ALA	429C	59.736	72.247	42.368	1.00	31.99	C
	ATOM	2715	O	ALA	429C	59.420	71.892	43.503	1.00	30.61	C
25	ATOM	2716	N	MET	430C	59.736	73.519	41.982	1.00	32.64	C
	ATOM	2717	CA	MET	430C	59.376	74.606	42.881	1.00	32.85	C
	ATOM	2718	CB	MET	430C	60.657	75.331	43.325	1.00	31.31	C
	ATOM	2719	CG	MET	430C	60.480	76.544	44.222	1.00	30.71	C
	ATOM	2720	SD	MET	430C	60.105	78.058	43.316	1.00	32.75	C
30	ATOM	2721	CE	MET	430C	59.490	79.107	44.636	1.00	31.88	C
	ATOM	2722	C	MET	430C	58.409	75.554	42.163	1.00	35.04	C
	ATOM	2723	O	MET	430C	58.616	75.887	40.994	1.00	35.67	C
	ATOM	2724	N	ALA	431C	57.347	75.967	42.862	1.00	34.47	C
	ATOM	2725	CA	ALA	431C	56.334	76.858	42.295	1.00	34.38	C
35	ATOM	2726	CB	ALA	431C	55.037	76.094	42.066	1.00	32.98	C
	ATOM	2727	C	ALA	431C	56.053	78.087	43.159	1.00	36.79	C
	ATOM	2728	O	ALA	431C	56.222	78.075	44.388	1.00	36.33	C
	ATOM	2729	N	ALA	432C	55.610	79.149	42.502	1.00	36.95	C
	ATOM	2730	CA	ALA	432C	55.300	80.387	43.188	1.00	37.10	C
40	ATOM	2731	CB	ALA	432C	56.490	81.329	43.124	1.00	37.73	C
	ATOM	2732	C	ALA	432C	54.091	81.012	42.514	1.00	37.08	C
	ATOM	2733	O	ALA	432C	53.875	80.822	41.318	1.00	37.32	C
	ATOM	2734	N	ILE	433C	53.296	81.734	43.297	1.00	36.44	C
	ATOM	2735	CA	ILE	433C	52.110	82.403	42.787	1.00	35.47	C
45	ATOM	2736	CB	ILE	433C	50.909	82.216	43.738	1.00	37.53	C
	ATOM	2737	CG2	ILE	433C	49.677	82.915	43.169	1.00	38.28	C
	ATOM	2738	CG1	ILE	433C	50.618	80.724	43.947	1.00	37.44	C
	ATOM	2739	CD	ILE	433C	50.185	79.992	42.696	1.00	35.24	C
	ATOM	2740	C	ILE	433C	52.416	83.899	42.653	1.00	36.77	C
50	ATOM	2741	O	ILE	433C	52.610	84.601	43.650	1.00	34.52	C
	ATOM	2742	N	PRO	434C	52.484	84.399	41.411	1.00	34.59	C
	ATOM	2743	CD	PRO	434C	52.377	83.668	40.136	1.00	33.72	C
	ATOM	2744	CA	PRO	434C	52.768	85.815	41.172	1.00	35.09	C
	ATOM	2745	CB	PRO	434C	53.207	85.822	39.710	1.00	34.64	C
55	ATOM	2746	CG	PRO	434C	52.288	84.792	39.116	1.00	31.80	C
	ATOM	2747	C	PRO	434C	51.538	86.704	41.399	1.00	33.42	C
	ATOM	2748	O	PRO	434C	50.409	86.266	41.214	1.00	34.39	C
	ATOM	2749	N	ILE	435C	51.766	87.947	41.815	1.00	34.08	C
	ATOM	2750	CA	ILE	435C	50.678	88.901	42.012	1.00	33.73	C

	ATOM	2751	CB	ILE	435C	50.861	89.726	43.314	1.00	30.92	C
	ATOM	2752	CG2	ILE	435C	49.682	90.688	43.481	1.00	31.80	C
	ATOM	2753	CG1	ILE	435C	50.965	88.785	44.521	1.00	29.91	C
	ATOM	2754	CD	ILE	435C	50.833	89.467	45.871	1.00	26.33	C
5	ATOM	2755	C	ILE	435C	50.746	89.836	40.802	1.00	34.07	C
	ATOM	2756	O	ILE	435C	51.712	90.572	40.641	1.00	35.50	C
	ATOM	2757	N	PRO	436C	49.729	89.812	39.931	1.00	36.36	C
	ATOM	2758	CD	PRO	436C	48.525	88.964	39.907	1.00	36.61	C
	ATOM	2759	CA	PRO	436C	49.764	90.690	38.754	1.00	37.02	C
10	ATOM	2760	CB	PRO	436C	48.496	90.302	37.989	1.00	34.52	C
	ATOM	2761	CG	PRO	436C	48.235	88.896	38.420	1.00	34.93	C
	ATOM	2762	C	PRO	436C	49.779	92.175	39.099	1.00	39.51	C
	ATOM	2763	O	PRO	436C	49.492	92.570	40.226	1.00	39.49	C
	ATOM	2764	N	LYS	437C	50.141	92.991	38.119	1.00	43.47	C
15	ATOM	2765	CA	LYS	437C	50.156	94.437	38.291	1.00	48.38	C
	ATOM	2766	CB	LYS	437C	50.800	95.081	37.058	1.00	49.11	C
	ATOM	2767	CG	LYS	437C	50.593	96.575	36.881	1.00	49.63	C
	ATOM	2768	CD	LYS	437C	51.404	97.048	35.673	1.00	50.90	C
	ATOM	2769	CE	LYS	437C	51.190	98.521	35.348	1.00	52.33	C
20	ATOM	2770	NZ	LYS	437C	49.885	98.777	34.653	1.00	55.07	C
	ATOM	2771	C	LYS	437C	48.676	94.810	38.398	1.00	50.45	C
	ATOM	2772	O	LYS	437C	47.855	94.289	37.637	1.00	50.76	C
	ATOM	2773	N	LEU	438C	48.325	95.684	39.336	1.00	52.43	C
	ATOM	2774	CA	LEU	438C	46.921	96.062	39.500	1.00	55.22	C
25	ATOM	2775	CB	LEU	438C	46.765	97.053	40.661	1.00	55.09	C
	ATOM	2776	CG	LEU	438C	45.317	97.459	40.985	1.00	54.70	C
	ATOM	2777	CD1	LEU	438C	44.531	96.236	41.435	1.00	54.64	C
	ATOM	2778	CD2	LEU	438C	45.297	98.509	42.065	1.00	54.77	C
	ATOM	2779	C	LEU	438C	46.335	96.682	38.225	1.00	57.41	C
30	ATOM	2780	OT1	LEU	438C	47.078	97.404	37.513	1.00	58.97	C
	ATOM	2781	OT	LEU	438C	45.125	96.452	37.960	1.00	59.05	C
	ATOM	2782	CL	CL-	900C	86.751	63.956	48.305	1.00	13.29	C
	ATOM	2783	O	HOH	601C	64.950	75.486	44.394	1.00	11.76	C
	ATOM	2784	O	HOH	602C	72.181	66.070	31.250	1.00	27.60	C
35	ATOM	2785	O	HOH	603C	67.607	91.919	33.178	1.00	30.94	C
	ATOM	2786	O	HOH	604C	55.666	91.448	63.606	1.00	26.34	C
	ATOM	2787	O	HOH	605C	61.397	67.783	46.361	1.00	30.34	C
	ATOM	2788	O	HOH	606C	69.665	66.239	52.150	1.00	34.66	C
	ATOM	2789	O	HOH	607C	62.223	61.328	34.301	1.00	38.12	C
40	ATOM	2790	O	HOH	608C	67.422	77.863	25.388	1.00	33.84	C
	ATOM	2791	O	HOH	609C	55.994	66.973	59.454	1.00	21.63	C
	ATOM	2792	O	HOH	610C	56.714	86.965	54.145	1.00	26.72	C
	ATOM	2793	O	HOH	611C	50.503	84.400	65.168	1.00	29.04	C
	ATOM	2794	O	HOH	612C	54.996	63.617	48.283	1.00	28.30	C
45	ATOM	2795	O	HOH	613C	59.821	69.636	44.939	1.00	33.20	C
	ATOM	2796	O	HOH	614C	60.979	69.594	55.137	1.00	26.25	C
	ATOM	2797	O	HOH	615C	57.776	82.138	30.588	1.00	31.09	C
	ATOM	2798	O	HOH	616C	64.975	63.068	46.448	1.00	30.91	C
	ATOM	2799	O	HOH	617C	51.295	79.980	66.070	1.00	35.56	C
50	ATOM	2800	O	HOH	618C	63.718	69.044	39.988	1.00	35.35	C
	ATOM	2801	O	HOH	619C	52.839	78.734	63.777	1.00	31.14	C
	ATOM	2802	O	HOH	620C	59.231	81.523	64.864	1.00	32.26	C
	ATOM	2803	O	HOH	621C	67.584	67.731	43.942	1.00	34.13	C
	ATOM	2804	O	HOH	622C	70.984	68.310	50.819	1.00	31.59	C
55	ATOM	2805	O	HOH	623C	62.954	85.294	56.407	1.00	33.70	C
	ATOM	2806	O	HOH	624C	72.209	87.266	43.655	1.00	30.60	C
	ATOM	2807	O	HOH	625C	63.007	69.341	53.295	1.00	30.56	C
	ATOM	2808	O	HOH	626C	58.185	57.236	61.426	1.00	31.95	C
	ATOM	2809	O	HOH	627C	57.029	80.231	52.701	1.00	39.26	C

	ATOM	2810	O	HOH	628C	72.308	79.553	47.139	1.00	35.97	C
	ATOM	2811	O	HOH	629C	52.928	94.588	40.769	1.00	31.02	C
	ATOM	2812	O	HOH	630C	62.239	88.106	26.351	1.00	40.81	C
	ATOM	2813	O	HOH	631C	75.352	77.431	52.745	1.00	31.16	C
5	ATOM	2814	O	HOH	632C	52.366	70.739	46.587	1.00	38.21	C
	ATOM	2815	O	HOH	633C	57.797	74.244	50.098	1.00	29.72	C
	ATOM	2816	O	HOH	634C	62.959	87.728	31.717	1.00	35.03	C
	ATOM	2817	O	HOH	635C	59.787	85.323	52.929	1.00	34.39	C
	ATOM	2818	O	HOH	636C	53.162	92.181	42.247	1.00	38.58	C
10	ATOM	2819	O	HOH	637C	59.930	73.280	20.696	1.00	30.77	C
	ATOM	2820	O	HOH	638C	50.848	69.403	42.979	1.00	31.07	C
	ATOM	2821	O	HOH	639C	61.147	86.215	28.013	1.00	43.23	C
	ATOM	2822	O	HOH	640C	69.875	81.191	46.116	1.00	35.42	C
	ATOM	2823	O	HOH	641C	62.614	80.796	31.939	1.00	33.23	C
15	ATOM	2824	O	HOH	642C	67.384	59.634	39.230	1.00	41.14	C
	ATOM	2825	O	HOH	643C	72.165	63.816	39.616	1.00	40.67	C
	ATOM	2826	O	HOH	644C	64.235	91.627	39.071	1.00	37.37	C
	ATOM	2827	O	HOH	645C	69.922	68.831	68.338	1.00	34.54	C
	ATOM	2828	O	HOH	646C	51.487	86.513	51.253	1.00	36.72	C
20	ATOM	2829	O	HOH	647C	57.809	89.529	53.220	1.00	34.47	C
	ATOM	2830	O	HOH	648C	66.591	96.342	53.723	1.00	41.70	C
	ATOM	2831	O	HOH	649C	49.534	81.888	65.182	1.00	33.66	C
	ATOM	2832	O	HOH	650C	47.460	62.204	32.755	1.00	36.53	C
	ATOM	2833	O	HOH	651C	75.470	70.618	43.906	1.00	39.78	C
25	ATOM	2834	O	HOH	652C	64.698	78.472	31.722	1.00	37.26	C
	ATOM	2835	O	HOH	653C	52.152	86.197	53.975	1.00	38.78	C
	ATOM	2836	O	HOH	654C	72.989	80.272	68.877	1.00	40.07	C
	ATOM	2837	O	HOH	655C	74.436	80.361	26.569	1.00	37.41	C
	ATOM	2838	O	HOH	656C	77.840	73.324	47.452	1.00	40.55	C
30	ATOM	2839	O	HOH	657C	50.066	76.054	66.468	1.00	33.28	C
	ATOM	2840	O	HOH	658C	63.898	87.083	24.448	1.00	39.78	C
	ATOM	2841	O	HOH	659C	63.766	74.344	41.469	1.00	46.78	C
	ATOM	2842	O	HOH	660C	48.051	72.162	26.050	1.00	34.62	C
	ATOM	2843	O	HOH	661C	78.387	86.513	29.255	1.00	53.12	C
35	ATOM	2844	O	HOH	662C	72.540	83.520	55.237	1.00	40.95	C
	ATOM	2845	O	HOH	663C	69.078	92.626	63.684	1.00	41.81	C
	ATOM	2846	O	HOH	664C	76.041	84.662	49.566	1.00	46.20	C
	ATOM	2847	O	HOH	665C	64.319	60.799	21.163	1.00	33.92	C
	ATOM	2848	O	HOH	666C	60.919	95.607	30.538	1.00	41.07	C
40	ATOM	2849	O	HOH	667C	53.036	80.187	61.092	1.00	37.16	C
	ATOM	2850	O	HOH	668C	72.060	73.400	41.082	1.00	38.03	C
	ATOM	2851	O	HOH	669C	75.789	72.985	45.532	1.00	38.34	C
	ATOM	2852	O	HOH	670C	49.756	78.306	67.672	1.00	35.87	C
	ATOM	2853	O	HOH	671C	51.954	63.865	23.481	1.00	43.36	C
45	ATOM	2854	O	HOH	672C	59.317	97.353	36.731	1.00	42.68	C
	ATOM	2855	O	HOH	673C	55.524	58.344	33.070	1.00	38.83	C
	ATOM	2856	O	HOH	674C	48.602	83.081	21.335	1.00	41.77	C
	ATOM	2857	O	HOH	675C	80.060	81.366	46.077	1.00	43.70	C
	ATOM	2858	O	HOH	676C	64.504	81.445	28.749	1.00	33.95	C
50	ATOM	2859	O	HOH	677C	74.215	86.658	51.046	1.00	40.46	C
	ATOM	2860	O	HOH	678C	69.373	63.438	62.159	1.00	39.04	C
	ATOM	2861	O	HOH	679C	58.528	80.717	24.642	1.00	40.27	C
	ATOM	2862	O	HOH	680C	66.745	74.072	42.427	1.00	41.94	C
	ATOM	2863	O	HOH	681C	51.744	93.627	30.059	1.00	41.79	C
55	ATOM	2864	O	HOH	682C	57.894	94.338	30.347	1.00	39.25	C
	ATOM	2865	O	HOH	683C	43.827	81.697	31.647	1.00	45.38	C
	ATOM	2866	O	HOH	684C	56.982	98.686	53.653	1.00	17.09	C
	ATOM	2867	O	HOH	685C	62.630	82.467	30.333	1.00	6.14	C
	ATOM	2868	O	HOH	686C	52.084	85.180	22.030	1.00	5.92	C

	ATOM	2869	O	HOH	687C	55.409	87.686	27.941	1.00	5.60	C
	ATOM	2870	O	HOH	688C	78.765	72.172	62.410	1.00	5.15	C
	ATOM	2871	O	HOH	689C	79.483	95.175	34.772	1.00	5.05	C
	ATOM	2872	O	HOH	690C	53.256	89.452	23.948	1.00	5.02	C
5	ATOM	2873	O	HOH	691C	54.767	57.391	35.807	1.00	4.91	C
	ATOM	2874	O	HOH	692C	57.790	101.176	36.561	1.00	4.77	C
	ATOM	2875	O	HOH	693C	79.037	69.386	59.091	1.00	4.73	C
	ATOM	2876	O	HOH	694C	38.167	79.356	25.739	1.00	4.73	C
	ATOM	2877	O	HOH	695C	50.602	96.295	40.974	1.00	4.65	C
10	ATOM	2878	O	HOH	696C	49.557	81.543	62.284	1.00	4.64	C
	ATOM	2879	O	HOH	697C	75.890	71.184	41.539	1.00	4.63	C
	ATOM	2880	O	HOH	698C	77.876	83.012	61.301	1.00	4.58	C
	ATOM	2881	O	HOH	699C	44.066	73.987	44.182	1.00	4.55	C
	ATOM	2882	O	HOH	700C	49.300	69.556	24.576	1.00	4.54	C
15	ATOM	2883	O	HOH	701C	51.380	71.257	43.511	1.00	4.52	C
	ATOM	2884	O	HOH	702C	37.566	72.441	26.303	1.00	4.49	C
	ATOM	2885	O	HOH	703C	58.671	97.265	57.001	1.00	4.48	C
	ATOM	2886	O	HOH	704C	72.399	96.329	32.819	1.00	4.47	C
	ATOM	2887	O	HOH	705C	74.082	95.531	33.622	1.00	4.44	C
20	ATOM	2888	O	HOH	706C	66.659	96.192	43.221	1.00	4.43	C
	ATOM	2889	O	HOH	707C	68.120	60.932	47.881	1.00	4.40	C
	ATOM	2890	O	HOH	708C	60.814	65.574	68.911	1.00	4.40	C
	ATOM	2891	O	HOH	709C	72.401	77.342	40.795	1.00	4.38	C
	ATOM	2892	O	HOH	710C	54.586	74.000	51.295	1.00	4.35	C
25	ATOM	2893	O	HOH	711C	49.163	61.316	36.572	1.00	4.35	C
	ATOM	2894	O	HOH	712C	60.077	102.044	60.933	1.00	4.35	C
	ATOM	2895	O	HOH	713C	66.058	69.732	72.639	1.00	4.29	C
	ATOM	2896	O	HOH	714C	70.831	91.648	53.742	1.00	4.24	C
	ATOM	2897	O	HOH	715C	55.212	80.677	51.331	1.00	4.24	C
30	ATOM	2898	O	HOH	716C	53.761	72.917	65.545	1.00	4.23	C
	ATOM	2899	O	HOH	717C	46.848	81.287	65.735	1.00	4.22	C
	ATOM	2900	O	HOH	718C	70.553	94.438	61.872	1.00	4.22	C
	ATOM	2901	O	HOH	719C	55.611	77.207	51.382	1.00	4.22	C
	ATOM	2902	O	HOH	720C	77.023	68.956	45.422	1.00	4.21	C
35	ATOM	2903	O	HOH	721C	52.399	93.709	34.360	1.00	4.19	C
	ATOM	2904	O	HOH	722C	56.882	81.105	71.354	1.00	4.18	C
	ATOM	2905	O	HOH	723C	37.543	63.701	37.192	1.00	4.18	C
	ATOM	2906	O	HOH	724C	68.943	69.913	15.598	1.00	4.15	C
	ATOM	2907	O	HOH	725C	56.999	98.095	63.750	1.00	4.14	C
40	ATOM	2908	O	HOH	726C	66.140	54.484	39.650	1.00	4.12	C
	ATOM	2909	O	HOH	727C	40.774	69.554	34.207	1.00	4.11	C
	ATOM	2910	O	HOH	728C	41.382	89.716	29.173	1.00	4.11	C
	ATOM	2911	O	HOH	729C	52.937	77.002	52.565	1.00	4.10	C
	ATOM	2912	O	HOH	730C	70.793	79.775	21.018	1.00	4.10	C
45	ATOM	2913	O	HOH	731C	74.526	88.757	67.965	1.00	4.10	C
	ATOM	2914	O	HOH	732C	49.086	68.270	44.865	1.00	4.10	C
	ATOM	2915	O	HOH	733C	50.546	81.105	23.002	1.00	4.10	C
	ATOM	2916	O	HOH	734C	76.433	89.752	41.272	1.00	4.09	C
	ATOM	2917	O	HOH	735C	47.592	73.833	65.654	1.00	4.08	C
50	ATOM	2918	O	HOH	736C	92.440	78.792	56.509	1.00	4.07	C
	ATOM	2919	O	HOH	737C	54.689	65.090	50.205	1.00	4.06	C
	ATOM	2920	O	HOH	738C	89.389	80.614	54.253	1.00	4.05	C
	ATOM	2921	O	HOH	739C	49.792	83.274	58.520	1.00	4.04	C
	ATOM	2922	O	HOH	740C	54.953	86.032	23.265	1.00	4.03	C
55	ATOM	2923	O	HOH	741C	69.407	61.329	24.770	1.00	4.03	C
	ATOM	2924	O	HOH	742C	76.858	82.844	52.597	1.00	4.02	C
	ATOM	2925	O	HOH	743C	78.647	83.351	65.559	1.00	4.01	C
	ATOM	2926	O	HOH	744C	54.512	66.410	30.134	1.00	4.01	C
	ATOM	2927	O	HOH	745C	64.686	68.144	69.116	1.00	4.01	C

	ATOM	2928	O	HOH	746C	75.145	51.235	22.883	1.00	4.00	C
	ATOM	2929	O	HOH	747C	43.746	63.763	39.055	1.00	3.97	C
	ATOM	2930	O	HOH	748C	60.334	94.151	32.954	1.00	3.97	C
5	ATOM	1	C1	NAG	001C	64.304	43.125	58.062	1.00	23.42	N
	ATOM	2	C2	NAG	001C	65.504	42.973	59.002	1.00	25.59	N
	ATOM	3	C3	NAG	001C	66.252	44.285	59.265	1.00	26.59	N
	ATOM	4	C4	NAG	001C	66.354	45.192	58.019	1.00	27.11	N
	ATOM	5	C5	NAG	001C	65.014	45.251	57.277	1.00	26.08	N
	ATOM	6	C6	NAG	001C	65.094	46.009	55.969	1.00	25.05	N
10	ATOM	7	C7	NAG	001C	65.488	41.339	60.767	1.00	28.62	N
	ATOM	8	C8	NAG	001C	64.982	40.880	62.141	1.00	28.98	N
	ATOM	9	N2	NAG	001C	65.035	42.489	60.293	1.00	27.59	N
	ATOM	10	O3	NAG	001C	67.563	43.964	59.739	1.00	26.71	N
	ATOM	11	O4	NAG	001C	66.715	46.533	58.432	1.00	29.85	N
15	ATOM	12	O5	NAG	001C	64.613	43.936	56.935	1.00	23.38	N
	ATOM	13	O6	NAG	001C	65.901	45.296	55.044	1.00	27.18	N
	ATOM	14	O7	NAG	001C	66.257	40.630	60.122	1.00	31.12	N
	ATOM	1	C1	NAG	002C	28.271	65.312	80.698	1.00	23.42	R
	ATOM	2	C2	NAG	002C	26.938	66.020	80.965	1.00	25.59	R
20	ATOM	3	C3	NAG	002C	26.773	66.496	82.412	1.00	26.59	R
	ATOM	4	C4	NAG	002C	27.348	65.511	83.452	1.00	27.11	R
	ATOM	5	C5	NAG	002C	28.720	64.990	83.007	1.00	26.08	R
	ATOM	6	C6	NAG	002C	29.267	63.909	83.917	1.00	25.05	R
	ATOM	7	C7	NAG	002C	25.864	67.314	79.248	1.00	28.62	R
25	ATOM	8	C8	NAG	002C	25.801	68.587	78.391	1.00	28.98	R
	ATOM	9	N2	NAG	002C	26.853	67.202	80.119	1.00	27.59	R
	ATOM	10	O3	NAG	002C	25.378	66.700	82.659	1.00	26.71	R
	ATOM	11	O4	NAG	002C	27.502	66.190	84.723	1.00	29.85	R
	ATOM	12	O5	NAG	002C	28.597	64.389	81.730	1.00	23.38	R
30	ATOM	13	O6	NAG	002C	28.470	62.739	83.813	1.00	27.18	R
	ATOM	14	O7	NAG	002C	25.038	66.419	79.085	1.00	31.12	R
	ATOM	1	CB	ASP	1D	28.801	104.093	62.314	1.00	40.28	D
	ATOM	2	CG	ASP	1D	28.696	103.062	63.423	1.00	41.06	D
	ATOM	3	OD1	ASP	1D	27.577	102.500	63.563	1.00	39.54	D
35	ATOM	4	OD2	ASP	1D	29.693	102.825	64.152	1.00	37.74	D
	ATOM	5	C	ASP	1D	30.116	105.776	61.134	1.00	42.30	D
	ATOM	6	O	ASP	1D	30.286	106.918	61.587	1.00	42.94	D
	ATOM	7	N	ASP	1D	31.000	104.829	63.269	1.00	41.50	D
	ATOM	8	CA	ASP	1D	30.240	104.539	62.018	1.00	41.04	D
40	ATOM	9	N	THR	2D	29.797	105.532	59.868	1.00	40.11	D
	ATOM	10	CA	THR	2D	29.566	106.605	58.920	1.00	38.84	D
	ATOM	11	CB	THR	2D	30.008	106.232	57.479	1.00	37.36	D
	ATOM	12	OG1	THR	2D	29.014	105.399	56.871	1.00	35.14	D
	ATOM	13	CG2	THR	2D	31.346	105.494	57.496	1.00	32.07	D
45	ATOM	14	C	THR	2D	28.041	106.628	58.985	1.00	40.07	D
	ATOM	15	O	THR	2D	27.433	105.691	59.513	1.00	40.24	D
	ATOM	16	N	PRO	3D	27.401	107.697	58.489	1.00	40.73	D
	ATOM	17	CD	PRO	3D	27.918	109.046	58.178	1.00	40.17	D
	ATOM	18	CA	PRO	3D	25.935	107.686	58.564	1.00	39.49	D
50	ATOM	19	CB	PRO	3D	25.565	109.160	58.394	1.00	39.93	D
	ATOM	20	CG	PRO	3D	26.706	109.722	57.583	1.00	41.03	D
	ATOM	21	C	PRO	3D	25.248	106.783	57.538	1.00	40.61	D
	ATOM	22	O	PRO	3D	24.025	106.809	57.404	1.00	40.96	D
	ATOM	23	N	ALD	4D	26.022	105.965	56.828	1.00	41.42	D
55	ATOM	24	CA	ALD	4D	25.435	105.078	55.823	1.00	40.22	D
	ATOM	25	CB	ALD	4D	26.499	104.616	54.848	1.00	40.48	D
	ATOM	26	C	ALD	4D	24.734	103.865	56.423	1.00	39.92	D
	ATOM	27	O	ALD	4D	25.065	103.419	57.514	1.00	38.21	D
	ATOM	28	N	ASN	5D	23.744	103.348	55.707	1.00	39.47	D

	ATOM	29	CA	ASN	5D	23.035	102.163	56.154	1.00	39.98	D
	ATOM	30	CB	ASN	5D	21.752	102.522	56.913	1.00	39.84	D
	ATOM	31	CG	ASN	5D	21.024	101.289	57.411	1.00	41.98	D
	ATOM	32	OD1	ASN	5D	21.644	100.245	57.592	1.00	41.90	D
5	ATOM	33	ND2	ASN	5D	19.711	101.397	57.642	1.00	45.23	D
	ATOM	34	C	ASN	5D	22.703	101.328	54.927	1.00	40.12	D
	ATOM	35	O	ASN	5D	21.618	101.440	54.359	1.00	41.86	D
	ATOM	36	N	CYS	6D	23.647	100.489	54.516	1.00	39.04	D
	ATOM	37	CA	CYS	6D	23.446	99.655	53.341	1.00	38.07	D
10	ATOM	38	C	CYS	6D	23.293	98.180	53.674	1.00	37.39	D
	ATOM	39	O	CYS	6D	23.688	97.735	54.748	1.00	35.73	D
	ATOM	40	CB	CYS	6D	24.589	99.871	52.356	1.00	37.67	D
	ATOM	41	SG	CYS	6D	24.625	101.567	51.690	1.00	39.13	D
	ATOM	42	N	THR	7D	22.720	97.426	52.738	1.00	37.35	D
15	ATOM	43	CA	THR	7D	22.464	96.011	52.955	1.00	37.54	D
	ATOM	44	CB	THR	7D	20.970	95.726	52.863	1.00	38.33	D
	ATOM	45	OG1	THR	7D	20.533	95.954	51.516	1.00	38.26	D
	ATOM	46	CG2	THR	7D	20.199	96.623	53.814	1.00	32.54	D
	ATOM	47	C	THR	7D	23.147	95.051	51.995	1.00	38.67	D
20	ATOM	48	O	THR	7D	23.597	95.435	50.913	1.00	38.94	D
	ATOM	49	N	TYR	8D	23.188	93.792	52.397	1.00	37.53	D
	ATOM	50	CA	TYR	8D	23.806	92.729	51.602	1.00	37.29	D
	ATOM	51	CB	TYR	8D	23.493	91.372	52.251	1.00	36.29	D
	ATOM	52	CG	TYR	8D	24.200	90.190	51.589	1.00	36.06	D
25	ATOM	53	CD1	TYR	8D	25.507	89.841	51.962	1.00	36.55	D
	ATOM	54	CE1	TYR	8D	26.144	88.757	51.346	1.00	35.31	D
	ATOM	55	CD2	TYR	8D	23.542	89.449	50.610	1.00	35.54	D
	ATOM	56	CE2	TYR	8D	24.177	88.372	49.998	1.00	37.01	D
	ATOM	57	CZ	TYR	8D	25.471	88.027	50.363	1.00	36.40	D
30	ATOM	58	OH	TYR	8D	26.074	86.973	49.750	1.00	35.00	D
	ATOM	59	C	TYR	8D	23.264	92.772	50.160	1.00	37.13	D
	ATOM	60	O	TYR	8D	24.039	92.852	49.195	1.00	36.11	D
	ATOM	61	N	PRO	9D	21.925	92.760	49.954	1.00	37.20	D
	ATOM	62	CD	PRO	9D	20.848	92.623	50.951	1.00	37.24	D
35	ATOM	63	CA	PRO	9D	21.363	92.808	48.594	1.00	38.92	D
	ATOM	64	CB	PRO	9D	19.872	92.995	48.847	1.00	36.25	D
	ATOM	65	CG	PRO	9D	19.663	92.213	50.091	1.00	37.48	D
	ATOM	66	C	PRO	9D	21.949	93.919	47.705	1.00	39.85	D
	ATOM	67	O	PRO	9D	22.118	93.730	46.500	1.00	38.74	D
40	ATOM	68	N	ASP	10D	22.259	95.068	48.303	1.00	39.71	D
	ATOM	69	CA	ASP	10D	22.834	96.187	47.554	1.00	41.70	D
	ATOM	70	CB	ASP	10D	22.967	97.434	48.441	1.00	43.47	D
	ATOM	71	CG	ASP	10D	21.655	97.837	49.101	1.00	45.58	D
	ATOM	72	OD1	ASP	10D	20.623	97.901	48.394	1.00	43.76	D
45	ATOM	73	OD2	ASP	10D	21.669	98.099	50.329	1.00	46.03	D
	ATOM	74	C	ASP	10D	24.223	95.838	47.009	1.00	41.37	D
	ATOM	75	O	ASP	10D	24.622	96.334	45.955	1.00	41.01	D
	ATOM	76	N	LEU	11D	24.957	95.004	47.746	1.00	39.73	D
	ATOM	77	CA	LEU	11D	26.301	94.582	47.355	1.00	40.04	D
50	ATOM	78	CB	LEU	11D	26.993	93.836	48.501	1.00	37.02	D
	ATOM	79	CG	LEU	11D	28.255	94.415	49.136	1.00	36.37	D
	ATOM	80	CD1	LEU	11D	28.937	93.317	49.916	1.00	33.14	D
	ATOM	81	CD2	LEU	11D	29.197	94.964	48.077	1.00	35.06	D
	ATOM	82	C	LEU	11D	26.308	93.666	46.134	1.00	39.94	D
55	ATOM	83	O	LEU	11D	27.114	93.855	45.221	1.00	40.09	D
	ATOM	84	N	LEU	12D	25.423	92.669	46.128	1.00	38.17	D
	ATOM	85	CA	LEU	12D	25.363	91.710	45.029	1.00	38.73	D
	ATOM	86	CB	LEU	12D	24.191	90.741	45.220	1.00	38.67	D
	ATOM	87	CG	LEU	12D	24.115	89.886	46.482	1.00	38.12	D

	ATOM	88	CD1	LEU	12D	22.873	89.022	46.396	1.00	37.44	D
	ATOM	89	CD2	LEU	12D	25.359	89.019	46.613	1.00	37.38	D
	ATOM	90	C	LEU	12D	25.227	92.379	43.667	1.00	38.29	D
	ATOM	91	O	LEU	12D	24.413	93.285	43.502	1.00	38.83	D
5	ATOM	92	N	GLY	13D	26.018	91.918	42.698	1.00	36.39	D
	ATOM	93	CA	GLY	13D	25.954	92.473	41.355	1.00	35.38	D
	ATOM	94	C	GLY	13D	27.307	92.731	40.717	1.00	35.83	D
	ATOM	95	O	GLY	13D	28.322	92.159	41.116	1.00	37.17	D
	ATOM	96	N	THR	14D	27.331	93.599	39.716	1.00	34.33	D
10	ATOM	97	CA	THR	14D	28.576	93.910	39.039	1.00	33.68	D
	ATOM	98	CB	THR	14D	28.393	93.839	37.521	1.00	34.49	D
	ATOM	99	OG1	THR	14D	27.981	92.514	37.163	1.00	34.36	D
	ATOM	100	CG2	THR	14D	29.690	94.169	36.810	1.00	32.57	D
	ATOM	101	C	THR	14D	29.082	95.287	39.435	1.00	34.72	D
15	ATOM	102	O	THR	14D	28.360	96.273	39.342	1.00	35.21	D
	ATOM	103	N	TRP	15D	30.328	95.345	39.887	1.00	35.31	D
	ATOM	104	CA	TRP	15D	30.925	96.599	40.310	1.00	35.06	D
	ATOM	105	CB	TRP	15D	31.503	96.479	41.717	1.00	35.40	D
	ATOM	106	CG	TRP	15D	30.489	96.443	42.802	1.00	37.21	D
20	ATOM	107	CD2	TRP	15D	30.039	97.556	43.579	1.00	36.45	D
	ATOM	108	CE2	TRP	15D	29.108	97.059	44.518	1.00	37.08	D
	ATOM	109	CE3	TRP	15D	30.330	98.930	43.572	1.00	36.02	D
	ATOM	110	CD1	TRP	15D	29.828	95.348	43.276	1.00	36.82	D
	ATOM	111	NE1	TRP	15D	28.998	95.708	44.312	1.00	36.15	D
25	ATOM	112	CZ2	TRP	15D	28.465	97.889	45.445	1.00	36.58	D
	ATOM	113	CZ3	TRP	15D	29.695	99.751	44.488	1.00	34.10	D
	ATOM	114	CH2	TRP	15D	28.771	99.227	45.414	1.00	35.53	D
	ATOM	115	C	TRP	15D	32.037	97.041	39.387	1.00	35.31	D
	ATOM	116	O	TRP	15D	32.811	96.230	38.899	1.00	34.66	D
30	ATOM	117	N	VAL	16D	32.115	98.347	39.172	1.00	36.25	D
	ATOM	118	CA	VAL	16D	33.139	98.930	38.332	1.00	35.81	D
	ATOM	119	CB	VAL	16D	32.538	99.746	37.193	1.00	35.33	D
	ATOM	120	CG1	VAL	16D	33.655	100.404	36.384	1.00	32.74	D
	ATOM	121	CG2	VAL	16D	31.692	98.842	36.325	1.00	31.97	D
35	ATOM	122	C	VAL	16D	33.993	99.835	39.185	1.00	36.67	D
	ATOM	123	O	VAL	16D	33.544	100.871	39.679	1.00	37.65	D
	ATOM	124	N	PHE	17D	35.234	99.456	39.297	1.00	37.76	D
	ATOM	125	CA	PHE	17D	36.136	100.210	40.165	1.00	40.71	D
	ATOM	126	CB	PHE	17D	36.921	99.240	41.048	1.00	39.84	D
40	ATOM	127	CG	PHE	17D	36.051	98.546	42.095	1.00	42.30	D
	ATOM	128	CD1	PHE	17D	36.241	97.190	42.378	1.00	42.09	D
	ATOM	129	CD2	PHE	17D	35.064	99.266	42.770	1.00	42.15	D
	ATOM	130	CE1	PHE	17D	35.448	96.559	43.343	1.00	41.86	D
	ATOM	131	CE2	PHE	17D	34.272	98.634	43.736	1.00	41.37	D
45	ATOM	132	CZ	PHE	17D	34.464	97.281	44.023	1.00	40.51	D
	ATOM	133	C	PHE	17D	37.139	101.039	39.339	1.00	43.12	D
	ATOM	134	O	PHE	17D	37.780	100.529	38.408	1.00	43.47	D
	ATOM	135	N	GLN	18D	37.236	102.308	39.716	1.00	42.66	D
	ATOM	136	CA	GLN	18D	38.176	103.247	39.102	1.00	45.15	D
50	ATOM	137	CB	GLN	18D	37.485	104.583	38.900	1.00	47.17	D
	ATOM	138	CG	GLN	18D	37.039	104.390	37.539	1.00	51.58	D
	ATOM	139	CD	GLN	18D	36.020	105.204	36.840	1.00	55.98	D
	ATOM	140	OE1	GLN	18D	35.631	104.735	35.776	1.00	56.73	D
	ATOM	141	NE2	GLN	18D	35.570	106.354	37.300	1.00	56.66	D
55	ATOM	142	C	GLN	18D	39.361	103.292	39.987	1.00	45.57	D
	ATOM	143	O	GLN	18D	39.240	103.573	41.163	1.00	45.74	D
	ATOM	144	N	VAL	19D	40.518	102.997	39.418	1.00	44.67	D
	ATOM	145	CA	VAL	19D	41.746	102.940	40.225	1.00	44.05	D
	ATOM	146	CB	VAL	19D	42.380	101.571	40.064	1.00	43.34	D

	ATOM	147	CG1	VAL	19D	43.431	101.294	41.141	1.00	42.24	D
	ATOM	148	CG2	VAL	19D	41.336	100.447	40.152	1.00	40.01	D
	ATOM	149	C	VAL	19D	42.764	104.020	39.836	1.00	46.41	D
	ATOM	150	O	VAL	19D	43.140	104.176	38.674	1.00	47.83	D
5	ATOM	151	N	GLY	20D	43.253	104.686	40.896	1.00	46.10	D
	ATOM	152	CA	GLY	20D	44.246	105.754	40.731	1.00	47.27	D
	ATOM	153	C	GLY	20D	45.653	105.163	40.639	1.00	48.99	D
	ATOM	154	O	GLY	20D	45.823	103.933	40.650	1.00	49.37	D
	ATOM	155	N	PRO	21D	46.695	106.007	40.499	1.00	49.15	D
10	ATOM	156	CD	PRO	21D	46.524	107.460	40.412	1.00	49.41	D
	ATOM	157	CA	PRO	21D	48.070	105.533	40.435	1.00	49.49	D
	ATOM	158	CB	PRO	21D	48.872	106.802	40.168	1.00	50.24	D
	ATOM	159	CG	PRO	21D	47.894	107.966	40.105	1.00	50.42	D
	ATOM	160	C	PRO	21D	48.482	104.805	41.727	1.00	49.09	D
15	ATOM	161	O	PRO	21D	47.772	104.872	42.752	1.00	49.95	D
	ATOM	162	N	ARG	22D	49.582	104.153	41.609	1.00	47.61	D
	ATOM	163	CA	ARG	22D	50.239	103.361	42.638	1.00	47.59	D
	ATOM	164	CB	ARG	22D	51.295	102.642	41.961	1.00	47.80	D
	ATOM	165	CG	ARG	22D	51.903	101.593	42.785	1.00	51.80	D
20	ATOM	166	CD	ARG	22D	53.312	101.928	43.201	1.00	54.28	D
	ATOM	167	NE	ARG	22D	53.724	101.136	44.341	1.00	56.17	D
	ATOM	168	CZ	ARG	22D	54.744	101.424	45.127	1.00	55.95	D
	ATOM	169	NH1	ARG	22D	55.480	102.529	44.922	1.00	55.63	D
	ATOM	170	NH2	ARG	22D	55.112	100.641	46.141	1.00	57.96	D
25	ATOM	171	C	ARG	22D	50.958	104.186	43.661	1.00	47.10	D
	ATOM	172	O	ARG	22D	51.530	105.199	43.316	1.00	48.31	D
	ATOM	173	N	HIS	23D	50.953	103.738	44.905	1.00	45.90	D
	ATOM	174	CA	HIS	23D	51.682	104.447	45.980	1.00	45.89	D
	ATOM	175	CB	HIS	23D	50.800	105.481	46.665	1.00	46.36	D
30	ATOM	176	CG	HIS	23D	50.420	106.658	45.776	1.00	46.84	D
	ATOM	177	CD2	HIS	23D	49.219	107.076	45.311	1.00	45.78	D
	ATOM	178	ND1	HIS	23D	51.367	107.553	45.280	1.00	47.59	D
	ATOM	179	CE1	HIS	23D	50.732	108.460	44.556	1.00	47.94	D
	ATOM	180	NE2	HIS	23D	49.450	108.189	44.565	1.00	46.05	D
35	ATOM	181	C	HIS	23D	52.150	103.450	47.032	1.00	46.01	D
	ATOM	182	O	HIS	23D	51.476	102.446	47.291	1.00	44.99	D
	ATOM	183	N	PRO	24D	53.301	103.701	47.680	1.00	46.15	D
	ATOM	184	CD	PRO	24D	54.295	104.762	47.446	1.00	44.85	D
	ATOM	185	CA	PRO	24D	53.766	102.762	48.711	1.00	45.28	D
40	ATOM	186	CB	PRO	24D	55.133	103.322	49.112	1.00	45.43	D
	ATOM	187	CG	PRO	24D	55.575	104.085	47.898	1.00	46.89	D
	ATOM	188	C	PRO	24D	52.806	102.730	49.893	1.00	44.14	D
	ATOM	189	O	PRO	24D	51.830	103.474	49.937	1.00	43.79	D
	ATOM	190	N	ARG	25D	53.097	101.862	50.852	1.00	45.31	D
45	ATOM	191	CA	ARG	25D	52.279	101.735	52.048	1.00	46.33	D
	ATOM	192	CB	ARG	25D	52.718	100.506	52.841	1.00	42.76	D
	ATOM	193	CG	ARG	25D	51.818	100.146	54.005	1.00	42.59	D
	ATOM	194	CD	ARG	25D	52.184	98.764	54.532	1.00	41.63	D
	ATOM	195	NE	ARG	25D	53.506	98.737	55.150	1.00	39.85	D
50	ATOM	196	CZ	ARG	25D	53.733	98.964	56.441	1.00	39.83	D
	ATOM	197	NH1	ARG	25D	52.726	99.235	57.258	1.00	38.73	D
	ATOM	198	NH2	ARG	25D	54.967	98.909	56.921	1.00	38.30	D
	ATOM	199	C	ARG	25D	52.410	102.993	52.915	1.00	48.99	D
	ATOM	200	O	ARG	25D	51.415	103.526	53.405	1.00	49.50	D
55	ATOM	201	N	SER	26D	53.637	103.477	53.077	1.00	51.32	D
	ATOM	202	CA	SER	26D	53.906	104.661	53.892	1.00	55.29	D
	ATOM	203	CB	SER	26D	55.415	104.778	54.160	1.00	55.94	D
	ATOM	204	OG	SER	26D	55.945	103.540	54.619	1.00	60.72	D
	ATOM	205	C	SER	26D	53.422	105.971	53.272	1.00	55.87	D

	ATOM	206	O	SER	26D	53.242	106.961	53.976	1.00	55.71	D
	ATOM	207	N	HIS	27D	53.199	105.980	51.961	1.00	58.03	D
	ATOM	208	CA	HIS	27D	52.780	107.207	51.280	1.00	59.69	D
	ATOM	209	CB	HIS	27D	53.783	107.531	50.164	1.00	63.53	D
5	ATOM	210	CG	HIS	27D	55.013	108.244	50.638	1.00	68.08	D
	ATOM	211	CD2	HIS	27D	56.300	107.830	50.747	1.00	69.51	D
	ATOM	212	ND1	HIS	27D	54.998	109.567	51.035	1.00	70.07	D
	ATOM	213	CE1	HIS	27D	56.225	109.940	51.363	1.00	71.29	D
	ATOM	214	NE2	HIS	27D	57.034	108.905	51.197	1.00	71.73	D
10	ATOM	215	C	HIS	27D	51.368	107.255	50.690	1.00	57.95	D
	ATOM	216	O	HIS	27D	51.078	108.134	49.868	1.00	59.66	D
	ATOM	217	N	ILE	28D	50.487	106.348	51.103	1.00	53.95	D
	ATOM	218	CA	ILE	28D	49.136	106.318	50.556	1.00	49.75	D
	ATOM	219	CB	ILE	28D	48.649	104.839	50.397	1.00	47.70	D
15	ATOM	220	CG2	ILE	28D	48.346	104.243	51.752	1.00	46.96	D
	ATOM	221	CG1	ILE	28D	47.407	104.767	49.505	1.00	46.12	D
	ATOM	222	CD	ILE	28D	47.648	105.229	48.070	1.00	45.53	D
	ATOM	223	C	ILE	28D	48.140	107.117	51.401	1.00	49.28	D
	ATOM	224	O	ILE	28D	48.131	107.030	52.631	1.00	48.52	D
20	ATOM	225	N	ASN	29D	47.316	107.913	50.728	1.00	48.31	D
	ATOM	226	CA	ASN	29D	46.294	108.722	51.389	1.00	48.97	D
	ATOM	227	CB	ASN	29D	46.792	110.151	51.656	1.00	50.69	D
	ATOM	228	CG	ASN	29D	45.786	110.979	52.458	1.00	51.19	D
	ATOM	229	OD1	ASN	29D	44.614	111.082	52.083	1.00	52.60	D
25	ATOM	230	ND2	ASN	29D	46.239	111.571	53.559	1.00	50.94	D
	ATOM	231	C	ASN	29D	45.114	108.767	50.434	1.00	47.65	D
	ATOM	232	O	ASN	29D	45.210	109.347	49.351	1.00	47.08	D
	ATOM	233	N	CYS	30D	44.002	108.163	50.837	1.00	47.41	D
	ATOM	234	CA	CYS	30D	42.831	108.102	49.972	1.00	47.83	D
30	ATOM	235	C	CYS	30D	41.653	108.994	50.336	1.00	48.51	D
	ATOM	236	O	CYS	30D	40.495	108.632	50.108	1.00	46.69	D
	ATOM	237	CB	CYS	30D	42.358	106.652	49.850	1.00	44.81	D
	ATOM	238	SG	CYS	30D	43.592	105.563	49.071	1.00	43.71	D
	ATOM	239	N	SER	31D	41.941	110.161	50.899	1.00	51.93	D
35	ATOM	240	CA	SER	31D	40.870	111.095	51.242	1.00	54.65	D
	ATOM	241	CB	SER	31D	41.433	112.303	51.983	1.00	54.29	D
	ATOM	242	OG	SER	31D	42.418	112.937	51.186	1.00	56.06	D
	ATOM	243	C	SER	31D	40.261	111.549	49.915	1.00	55.61	D
	ATOM	244	O	SER	31D	39.053	111.794	49.818	1.00	55.99	D
40	ATOM	245	N	VAL	32D	41.104	111.635	48.886	1.00	55.53	D
	ATOM	246	CA	VAL	32D	40.641	112.062	47.572	1.00	55.45	D
	ATOM	247	CB	VAL	32D	41.079	113.504	47.281	1.00	56.70	D
	ATOM	248	CG1	VAL	32D	40.298	114.046	46.078	1.00	57.70	D
	ATOM	249	CG2	VAL	32D	40.864	114.370	48.520	1.00	58.90	D
45	ATOM	250	C	VAL	32D	41.137	111.193	46.419	1.00	54.83	D
	ATOM	251	O	VAL	32D	42.304	110.774	46.382	1.00	54.07	D
	ATOM	252	N	MET	33D	40.236	110.934	45.476	1.00	53.57	D
	ATOM	253	CA	MET	33D	40.557	110.145	44.298	1.00	52.48	D
	ATOM	254	CB	MET	33D	39.284	109.784	43.533	1.00	51.56	D
50	ATOM	255	CG	MET	33D	38.900	108.335	43.625	1.00	51.27	D
	ATOM	256	SD	MET	33D	40.274	107.225	43.313	1.00	50.70	D
	ATOM	257	CE	MET	33D	40.163	107.008	41.524	1.00	50.26	D
	ATOM	258	C	MET	33D	41.449	110.961	43.378	1.00	53.39	D
	ATOM	259	O	MET	33D	41.304	112.184	43.289	1.00	53.27	D
55	ATOM	260	N	GLU	34D	42.370	110.278	42.706	1.00	53.53	D
	ATOM	261	CA	GLU	34D	43.268	110.910	41.747	1.00	53.79	D
	ATOM	262	CB	GLU	34D	44.691	110.366	41.908	1.00	56.21	D
	ATOM	263	CG	GLU	34D	45.370	110.715	43.211	1.00	57.38	D
	ATOM	264	CD	GLU	34D	46.731	110.048	43.339	1.00	60.13	D

	ATOM	265	OE1	GLU	34D	46.788	108.904	43.865	1.00	60.67	D
	ATOM	266	OE2	GLU	34D	47.740	110.664	42.900	1.00	58.46	D
	ATOM	267	C	GLU	34D	42.737	110.535	40.358	1.00	53.30	D
	ATOM	268	O	GLU	34D	41.773	109.771	40.241	1.00	50.62	D
5	ATOM	269	N	PRO	35D	43.344	111.079	39.287	1.00	54.04	D
	ATOM	270	CD	PRO	35D	44.348	112.162	39.222	1.00	54.01	D
	ATOM	271	CA	PRO	35D	42.857	110.730	37.943	1.00	53.72	D
	ATOM	272	CB	PRO	35D	43.832	111.462	37.016	1.00	53.37	D
	ATOM	273	CG	PRO	35D	44.142	112.716	37.800	1.00	53.39	D
10	ATOM	274	C	PRO	35D	42.883	109.217	37.743	1.00	52.92	D
	ATOM	275	O	PRO	35D	43.857	108.547	38.092	1.00	52.49	D
	ATOM	276	N	THR	36D	41.799	108.688	37.192	1.00	52.82	D
	ATOM	277	CA	THR	36D	41.669	107.259	36.954	1.00	52.88	D
	ATOM	278	CB	THR	36D	40.281	106.935	36.406	1.00	52.84	D
15	ATOM	279	OG1	THR	36D	39.294	107.364	37.354	1.00	53.43	D
	ATOM	280	CG2	THR	36D	40.140	105.433	36.132	1.00	51.27	D
	ATOM	281	C	THR	36D	42.705	106.757	35.963	1.00	54.29	D
	ATOM	282	O	THR	36D	42.941	107.386	34.925	1.00	52.15	D
	ATOM	283	N	GLU	37D	43.318	105.612	36.304	1.00	55.22	D
20	ATOM	284	CA	GLU	37D	44.347	105.013	35.445	1.00	56.98	D
	ATOM	285	CB	GLU	37D	45.654	104.876	36.195	1.00	58.29	D
	ATOM	286	CG	GLU	37D	46.381	106.197	36.374	1.00	61.75	D
	ATOM	287	CD	GLU	37D	47.861	105.997	36.600	1.00	63.86	D
	ATOM	288	OE1	GLU	37D	48.609	107.015	36.777	1.00	64.28	D
25	ATOM	289	OE2	GLU	37D	48.331	104.807	36.609	1.00	62.16	D
	ATOM	290	C	GLU	37D	43.922	103.631	34.962	1.00	57.10	D
	ATOM	291	O	GLU	37D	44.245	103.222	33.844	1.00	57.55	D
	ATOM	292	N	GLU	38D	43.220	102.906	35.804	1.00	57.04	D
	ATOM	293	CA	GLU	38D	42.721	101.610	35.396	1.00	55.60	D
30	ATOM	294	CB	GLU	38D	43.385	100.395	35.957	1.00	58.17	D
	ATOM	295	CG	GLU	38D	44.884	100.048	36.091	1.00	61.04	D
	ATOM	296	CD	GLU	38D	45.683	99.757	34.829	1.00	63.70	D
	ATOM	297	OE1	GLU	38D	46.892	100.155	34.801	1.00	63.69	D
	ATOM	298	OE2	GLU	38D	45.164	99.134	33.832	1.00	63.58	D
35	ATOM	299	C	GLU	38D	41.227	101.491	35.820	1.00	54.27	D
	ATOM	300	O	GLU	38D	40.745	102.200	36.718	1.00	54.33	D
	ATOM	301	N	LYS	39D	40.532	100.596	35.159	1.00	51.32	D
	ATOM	302	CA	LYS	39D	39.115	100.360	35.401	1.00	49.38	D
	ATOM	303	CB	LYS	39D	38.322	100.916	34.203	1.00	50.48	D
40	ATOM	304	CG	LYS	39D	36.861	101.238	34.499	1.00	54.07	D
	ATOM	305	CD	LYS	39D	36.293	102.334	33.576	1.00	55.90	D
	ATOM	306	CE	LYS	39D	34.786	102.548	33.797	1.00	59.31	D
	ATOM	307	NZ	LYS	39D	34.225	103.728	33.093	1.00	59.16	D
	ATOM	308	C	LYS	39D	38.909	98.858	35.545	1.00	47.69	D
45	ATOM	309	O	LYS	39D	39.079	98.105	34.577	1.00	48.28	D
	ATOM	310	N	VAL	40D	38.645	98.407	36.775	1.00	44.36	D
	ATOM	311	CA	VAL	40D	38.482	96.986	37.071	1.00	40.79	D
	ATOM	312	CB	VAL	40D	39.360	96.593	38.283	1.00	40.02	D
	ATOM	313	CG1	VAL	40D	39.138	95.136	38.661	1.00	36.38	D
50	ATOM	314	CG2	VAL	40D	40.828	96.839	37.947	1.00	38.63	D
	ATOM	315	C	VAL	40D	37.033	96.577	37.347	1.00	41.51	D
	ATOM	316	O	VAL	40D	36.305	97.285	38.052	1.00	43.93	D
	ATOM	317	N	VAL	41D	36.622	95.439	36.784	1.00	39.22	D
	ATOM	318	CA	VAL	41D	35.267	94.924	36.974	1.00	36.69	D
55	ATOM	319	CB	VAL	41D	34.596	94.587	35.640	1.00	36.32	D
	ATOM	320	CG1	VAL	41D	33.166	94.132	35.885	1.00	34.53	D
	ATOM	321	CG2	VAL	41D	34.621	95.794	34.727	1.00	37.69	D
	ATOM	322	C	VAL	41D	35.263	93.662	37.831	1.00	37.00	D
	ATOM	323	O	VAL	41D	35.996	92.710	37.561	1.00	36.96	D

	ATOM	324	N	ILE	42D	34.429	93.657	38.862	1.00	35.86	D
	ATOM	325	CA	ILE	42D	34.331	92.513	39.754	1.00	34.78	D
	ATOM	326	CB	ILE	42D	35.033	92.805	41.104	1.00	34.00	D
	ATOM	327	CG2	ILE	42D	34.826	91.642	42.071	1.00	30.30	D
5	ATOM	328	CG1	ILE	42D	36.525	93.062	40.861	1.00	33.29	D
	ATOM	329	CD	ILE	42D	37.328	93.310	42.116	1.00	34.69	D
	ATOM	330	C	ILE	42D	32.871	92.172	40.010	1.00	35.61	D
	ATOM	331	O	ILE	42D	32.044	93.065	40.193	1.00	36.59	D
	ATOM	332	N	HIS	43D	32.561	90.879	40.013	1.00	34.04	D
10	ATOM	333	CA	HIS	43D	31.206	90.408	40.251	1.00	34.68	D
	ATOM	334	CB	HIS	43D	30.843	89.325	39.232	1.00	35.70	D
	ATOM	335	CG	HIS	43D	30.925	89.777	37.807	1.00	38.93	D
	ATOM	336	CD2	HIS	43D	31.986	89.929	36.981	1.00	38.22	D
	ATOM	337	ND1	HIS	43D	29.813	90.136	37.074	1.00	39.36	D
15	ATOM	338	CE1	HIS	43D	30.186	90.489	35.857	1.00	37.96	D
	ATOM	339	NE2	HIS	43D	31.500	90.373	35.775	1.00	40.72	D
	ATOM	340	C	HIS	43D	31.116	89.818	41.658	1.00	34.97	D
	ATOM	341	O	HIS	43D	32.037	89.139	42.102	1.00	36.02	D
	ATOM	342	N	LEU	44D	30.009	90.071	42.353	1.00	33.80	D
20	ATOM	343	CA	LEU	44D	29.812	89.529	43.701	1.00	35.36	D
	ATOM	344	CB	LEU	44D	29.763	90.663	44.727	1.00	32.69	D
	ATOM	345	CG	LEU	44D	30.969	91.601	44.754	1.00	33.36	D
	ATOM	346	CD1	LEU	44D	30.767	92.656	45.838	1.00	30.07	D
	ATOM	347	CD2	LEU	44D	32.240	90.798	44.996	1.00	29.97	D
25	ATOM	348	C	LEU	44D	28.502	88.738	43.736	1.00	35.65	D
	ATOM	349	O	LEU	44D	27.439	89.289	43.459	1.00	37.08	D
	ATOM	350	N	LYS	45D	28.887	87.134	44.264	1.00	37.12	D
	ATOM	351	CA	LYS	45D	27.522	86.625	44.077	1.00	38.23	D
	ATOM	352	CB	LYS	45D	27.497	85.609	42.929	1.00	40.53	D
30	ATOM	353	CG	LYS	45D	27.198	86.250	41.565	1.00	42.38	D
	ATOM	354	CD	LYS	45D	26.190	87.402	41.650	1.00	49.18	D
	ATOM	355	CE	LYS	45D	25.813	87.975	40.279	1.00	50.80	D
	ATOM	356	NZ	LYS	45D	25.023	87.042	39.462	1.00	53.90	D
	ATOM	357	C	LYS	45D	27.024	85.949	45.374	1.00	39.78	D
35	ATOM	358	O	LYS	45D	27.818	85.659	46.281	1.00	40.57	D
	ATOM	359	N	LYS	46D	25.716	85.744	45.365	1.00	41.85	D
	ATOM	360	CA	LYS	46D	24.910	85.130	46.459	1.00	41.90	D
	ATOM	361	CB	LYS	46D	24.541	83.692	46.115	1.00	44.97	D
	ATOM	362	CG	LYS	46D	23.086	83.575	45.635	1.00	44.25	D
40	ATOM	363	CD	LYS	46D	22.125	83.089	46.724	1.00	44.04	D
	ATOM	364	CE	LYS	46D	21.442	81.771	46.361	1.00	42.84	D
	ATOM	365	NZ	LYS	46D	22.399	80.694	46.072	1.00	44.73	D
	ATOM	366	C	LYS	46D	25.634	85.140	47.834	1.00	43.40	D
	ATOM	367	O	LYS	46D	25.602	86.127	48.572	1.00	39.59	D
45	ATOM	368	N	LEU	47D	26.282	84.046	48.198	1.00	44.56	D
	ATOM	369	CA	LEU	47D	26.963	83.969	49.519	1.00	40.21	D
	ATOM	370	CB	LEU	47D	27.083	82.516	49.974	1.00	38.90	D
	ATOM	371	CG	LEU	47D	25.778	81.997	50.588	1.00	38.34	D
	ATOM	372	CD1	LEU	47D	25.998	81.055	51.772	1.00	39.88	D
50	ATOM	373	CD2	LEU	47D	24.883	83.122	51.116	1.00	37.27	D
	ATOM	374	C	LEU	47D	28.359	84.587	49.462	1.00	39.50	D
	ATOM	375	O	LEU	47D	28.700	85.455	50.289	1.00	40.75	D
	ATOM	376	N	ASP	48D	29.380	84.457	49.283	1.00	35.83	D
	ATOM	377	CA	ASP	48D	30.671	85.133	49.388	1.00	33.58	D
55	ATOM	378	CB	ASP	48D	31.352	84.718	50.702	1.00	33.68	D
	ATOM	379	CG	ASP	48D	31.942	83.323	50.652	1.00	35.99	D
	ATOM	380	OD1	ASP	48D	31.407	82.458	49.935	1.00	38.09	D
	ATOM	381	OD2	ASP	48D	32.946	83.081	51.350	1.00	39.54	D
	ATOM	382	C	ASP	48D	31.644	84.992	48.218	1.00	33.19	D

	ATOM	383	O	ASP	48D	32.852	85.093	48.397	1.00	32.13	D
	ATOM	384	N	THR	49D	31.119	84.791	47.015	1.00	34.69	D
	ATOM	385	CA	THR	49D	31.965	84.653	45.841	1.00	32.42	D
	ATOM	386	CB	THR	49D	31.370	83.645	44.840	1.00	33.29	D
5	ATOM	387	OG1	THR	49D	31.328	82.345	45.430	1.00	32.59	D
	ATOM	388	CG2	THR	49D	32.211	83.596	43.576	1.00	32.86	D
	ATOM	389	C	THR	49D	32.221	85.958	45.082	1.00	33.06	D
	ATOM	390	O	THR	49D	31.309	86.720	44.789	1.00	31.74	D
	ATOM	391	N	ALD	50D	33.486	86.196	44.761	1.00	34.39	D
10	ATOM	392	CA	ALD	50D	33.893	87.363	43.994	1.00	33.65	D
	ATOM	393	CB	ALD	50D	34.795	88.260	44.832	1.00	34.11	D
	ATOM	394	C	ALD	50D	34.666	86.804	42.804	1.00	34.28	D
	ATOM	395	O	ALD	50D	35.435	85.864	42.956	1.00	34.75	D
	ATOM	396	N	TYR	51D	34.459	87.356	41.619	1.00	34.63	D
15	ATOM	397	CA	TYR	51D	35.188	86.870	40.455	1.00	35.49	D
	ATOM	398	CB	TYR	51D	34.535	85.613	39.870	1.00	32.75	D
	ATOM	399	CG	TYR	51D	33.081	85.749	39.456	1.00	34.70	D
	ATOM	400	CD1	TYR	51D	32.053	85.568	40.382	1.00	34.16	D
	ATOM	401	CE1	TYR	51D	30.719	85.626	39.997	1.00	35.08	D
20	ATOM	402	CD2	TYR	51D	32.733	86.006	38.124	1.00	34.32	D
	ATOM	403	CE2	TYR	51D	31.400	86.070	37.725	1.00	33.74	D
	ATOM	404	CZ	TYR	51D	30.397	85.876	38.668	1.00	36.72	D
	ATOM	405	OH	TYR	51D	29.071	85.920	38.291	1.00	36.53	D
	ATOM	406	C	TYR	51D	35.320	87.919	39.374	1.00	35.70	D
25	ATOM	407	O	TYR	51D	34.397	88.705	39.143	1.00	36.85	D
	ATOM	408	N	ASP	52D	36.481	87.939	38.726	1.00	35.40	D
	ATOM	409	CA	ASP	52D	36.728	88.884	37.647	1.00	35.51	D
	ATOM	410	CB	ASP	52D	38.230	89.112	37.442	1.00	34.31	D
	ATOM	411	CG	ASP	52D	38.985	87.834	37.102	1.00	34.28	D
30	ATOM	412	OD1	ASP	52D	38.374	86.883	36.571	1.00	36.05	D
	ATOM	413	OD2	ASP	52D	40.205	87.791	37.355	1.00	33.44	D
	ATOM	414	C	ASP	52D	36.109	88.302	36.389	1.00	35.88	D
	ATOM	415	O	ASP	52D	35.281	87.401	36.468	1.00	37.26	D
	ATOM	416	N	GLU	53D	36.513	88.796	35.227	1.00	39.55	D
35	ATOM	417	CA	GLU	53D	35.947	88.292	33.982	1.00	41.98	D
	ATOM	418	CB	GLU	53D	35.661	89.444	33.030	1.00	44.69	D
	ATOM	419	CG	GLU	53D	34.181	89.754	32.950	1.00	50.39	D
	ATOM	420	CD	GLU	53D	33.908	91.200	33.221	1.00	54.04	D
	ATOM	421	OE1	GLU	53D	32.713	91.573	33.310	1.00	55.71	D
40	ATOM	422	OE2	GLU	53D	34.902	91.961	33.347	1.00	55.68	D
	ATOM	423	C	GLU	53D	36.755	87.241	33.253	1.00	40.50	D
	ATOM	424	O	GLU	53D	36.290	86.688	32.263	1.00	40.73	D
	ATOM	425	N	VAL	54D	37.952	86.953	33.742	1.00	39.75	D
	ATOM	426	CA	VAL	54D	38.793	85.964	33.091	1.00	39.48	D
45	ATOM	427	CB	VAL	54D	40.194	86.537	32.828	1.00	40.36	D
	ATOM	428	CG1	VAL	54D	40.093	87.668	31.793	1.00	38.06	D
	ATOM	429	CG2	VAL	54D	40.802	87.062	34.121	1.00	38.84	D
	ATOM	430	C	VAL	54D	38.907	84.649	33.847	1.00	40.26	D
	ATOM	431	O	VAL	54D	39.981	84.060	33.915	1.00	41.88	D
50	ATOM	432	N	GLY	55D	37.794	84.200	34.420	1.00	41.13	D
	ATOM	433	CA	GLY	55D	37.775	82.942	35.146	1.00	40.80	D
	ATOM	434	C	GLY	55D	38.395	82.848	36.534	1.00	40.97	D
	ATOM	435	O	GLY	55D	38.547	81.738	37.046	1.00	41.71	D
	ATOM	436	N	ASN	56D	38.747	83.971	37.155	1.00	39.30	D
55	ATOM	437	CA	ASN	56D	39.341	83.924	38.492	1.00	38.72	D
	ATOM	438	CB	ASN	56D	40.456	84.960	38.605	1.00	38.26	D
	ATOM	439	CG	ASN	56D	41.579	84.714	37.618	1.00	37.24	D
	ATOM	440	OD1	ASN	56D	42.212	83.662	37.634	1.00	37.37	D
	ATOM	441	ND2	ASN	56D	41.832	85.686	36.753	1.00	36.12	D

	ATOM	442	C	ASN	56D	38.317	84.140	39.615	1.00	39.16	D
	ATOM	443	O	ASN	56D	37.497	85.060	39.552	1.00	40.18	D
	ATOM	444	N	SER	57D	38.386	83.287	40.639	1.00	37.33	D
	ATOM	445	CA	SER	57D	37.483	83.333	41.793	1.00	36.98	D
5	ATOM	446	CB	SER	57D	37.066	81.924	42.228	1.00	38.22	D
	ATOM	447	OG	SER	57D	36.162	81.328	41.330	1.00	45.46	D
	ATOM	448	C	SER	57D	38.111	83.997	43.003	1.00	35.80	D
	ATOM	449	O	SER	57D	39.329	83.987	43.170	1.00	34.15	D
	ATOM	450	N	GLY	58D	37.250	84.525	43.866	1.00	35.45	D
10	ATOM	451	CA	GLY	58D	37.694	85.193	45.074	1.00	33.47	D
	ATOM	452	C	GLY	58D	36.621	85.225	46.148	1.00	34.21	D
	ATOM	453	O	GLY	58D	35.594	84.544	46.060	1.00	33.05	D
	ATOM	454	N	TYR	59D	36.847	86.054	47.155	1.00	33.15	D
	ATOM	455	CA	TYR	59D	35.929	86.169	48.272	1.00	33.03	D
15	ATOM	456	CB	TYR	59D	36.590	85.502	49.477	1.00	38.33	D
	ATOM	457	CG	TYR	59D	36.354	86.186	50.794	1.00	43.85	D
	ATOM	458	CD1	TYR	59D	35.256	85.854	51.590	1.00	48.03	D
	ATOM	459	CE1	TYR	59D	35.022	86.509	52.801	1.00	50.47	D
	ATOM	460	CD2	TYR	59D	37.215	87.185	51.235	1.00	46.11	D
20	ATOM	461	CE2	TYR	59D	36.997	87.846	52.434	1.00	49.61	D
	ATOM	462	CZ	TYR	59D	35.899	87.507	53.218	1.00	51.22	D
	ATOM	463	OH	TYR	59D	35.685	88.163	54.418	1.00	51.39	D
	ATOM	464	C	TYR	59D	35.569	87.620	48.581	1.00	32.66	D
	ATOM	465	O	TYR	59D	36.260	88.545	48.155	1.00	31.29	D
25	ATOM	466	N	PHE	60D	34.476	87.811	49.313	1.00	31.38	D
	ATOM	467	CA	PHE	60D	34.038	89.146	49.713	1.00	32.31	D
	ATOM	468	CB	PHE	60D	33.286	89.838	48.564	1.00	30.22	D
	ATOM	469	CG	PHE	60D	31.829	89.457	48.468	1.00	29.18	D
	ATOM	470	CD1	PHE	60D	30.885	90.020	49.331	1.00	31.18	D
30	ATOM	471	CD2	PHE	60D	31.401	88.516	47.534	1.00	27.77	D
	ATOM	472	CE1	PHE	60D	29.536	89.649	49.265	1.00	31.86	D
	ATOM	473	CE2	PHE	60D	30.060	88.138	47.458	1.00	29.71	D
	ATOM	474	CZ	PHE	60D	29.123	88.704	48.323	1.00	32.51	D
	ATOM	475	C	PHE	60D	33.121	89.034	50.932	1.00	34.26	D
35	ATOM	476	O	PHE	60D	32.561	87.970	51.196	1.00	33.77	D
	ATOM	477	N	THR	61D	32.979	90.123	51.684	1.00	34.13	D
	ATOM	478	CA	THR	61D	32.072	90.130	52.826	1.00	33.73	D
	ATOM	479	CB	THR	61D	32.742	89.667	54.150	1.00	34.96	D
	ATOM	480	OG1	THR	61D	31.749	89.603	55.187	1.00	34.95	D
40	ATOM	481	CG2	THR	61D	33.823	90.651	54.593	1.00	32.00	D
	ATOM	482	C	THR	61D	31.524	91.524	53.071	1.00	33.68	D
	ATOM	483	O	THR	61D	32.204	92.519	52.841	1.00	34.70	D
	ATOM	484	N	LEU	62D	30.276	91.589	53.505	1.00	34.77	D
	ATOM	485	CA	LEU	62D	29.680	92.866	53.859	1.00	35.68	D
45	ATOM	486	CB	LEU	62D	28.157	92.729	53.966	1.00	35.08	D
	ATOM	487	CG	LEU	62D	27.333	93.927	54.444	1.00	34.88	D
	ATOM	488	CD1	LEU	62D	27.389	95.043	53.409	1.00	33.54	D
	ATOM	489	CD2	LEU	62D	25.895	93.492	54.670	1.00	33.50	D
	ATOM	490	C	LEU	62D	30.264	93.172	55.252	1.00	37.05	D
50	ATOM	491	O	LEU	62D	30.559	92.253	56.033	1.00	37.53	D
	ATOM	492	N	ILE	63D	30.464	94.447	55.554	1.00	36.52	D
	ATOM	493	CA	ILE	63D	30.976	94.834	56.863	1.00	36.16	D
	ATOM	494	CB	ILE	63D	32.198	95.744	56.728	1.00	37.06	D
	ATOM	495	CG2	ILE	63D	32.660	96.199	58.108	1.00	35.15	D
55	ATOM	496	CG1	ILE	63D	33.302	94.996	55.975	1.00	37.31	D
	ATOM	497	CD	ILE	63D	34.480	95.861	55.575	1.00	38.29	D
	ATOM	498	C	ILE	63D	29.836	95.587	57.536	1.00	36.09	D
	ATOM	499	O	ILE	63D	29.678	96.788	57.334	1.00	35.38	D
	ATOM	500	N	TYR	64D	29.037	94.863	58.321	1.00	36.69	D

	ATOM	501	CA	TYR	64D	27.867	95.426	59.005	1.00	35.77	D
	ATOM	502	CB	TYR	64D	28.293	96.425	60.090	1.00	34.91	D
	ATOM	503	CG	TYR	64D	27.152	96.856	60.988	1.00	35.87	D
	ATOM	504	CD1	TYR	64D	26.426	95.919	61.726	1.00	36.49	D
5	ATOM	505	CE1	TYR	64D	25.368	96.309	62.547	1.00	37.20	D
	ATOM	506	CD2	TYR	64D	26.789	98.198	61.093	1.00	37.20	D
	ATOM	507	CE2	TYR	64D	25.736	98.602	61.909	1.00	38.56	D
	ATOM	508	CZ	TYR	64D	25.031	97.652	62.634	1.00	39.87	D
	ATOM	509	OH	TYR	64D	24.004	98.049	63.458	1.00	41.82	D
10	ATOM	510	C	TYR	64D	26.950	96.102	57.971	1.00	35.39	D
	ATOM	511	O	TYR	64D	26.287	95.411	57.192	1.00	36.07	D
	ATOM	512	N	ASN	65D	26.905	97.435	57.963	1.00	33.98	D
	ATOM	513	CA	ASN	65D	26.087	98.172	56.992	1.00	35.01	D
	ATOM	514	CB	ASN	65D	24.788	98.687	57.641	1.00	34.00	D
15	ATOM	515	CG	ASN	65D	25.031	99.792	58.673	1.00	33.67	D
	ATOM	516	OD1	ASN	65D	26.155	100.270	58.853	1.00	30.98	D
	ATOM	517	ND2	ASN	65D	23.966	100.203	59.348	1.00	30.42	D
	ATOM	518	C	ASN	65D	26.893	99.355	56.462	1.00	34.65	D
	ATOM	519	O	ASN	65D	26.354	100.262	55.820	1.00	33.16	D
20	ATOM	520	N	GLN	66D	28.194	99.309	56.735	1.00	35.63	D
	ATOM	521	CA	GLN	66D	29.148	100.358	56.393	1.00	34.74	D
	ATOM	522	CB	GLN	66D	30.200	100.413	57.496	1.00	35.48	D
	ATOM	523	CG	GLN	66D	29.613	100.627	58.882	1.00	37.74	D
	ATOM	524	CD	GLN	66D	29.339	102.088	59.164	1.00	39.36	D
25	ATOM	525	OE1	GLN	66D	30.267	102.895	59.239	1.00	37.74	D
	ATOM	526	NE2	GLN	66D	28.064	102.438	59.312	1.00	40.23	D
	ATOM	527	C	GLN	66D	29.852	100.267	55.047	1.00	34.24	D
	ATOM	528	O	GLN	66D	29.958	101.254	54.333	1.00	34.69	D
	ATOM	529	N	GLY	67D	30.361	99.088	54.721	1.00	35.10	D
30	ATOM	530	CA	GLY	67D	31.073	98.907	53.471	1.00	33.77	D
	ATOM	531	C	GLY	67D	31.314	97.438	53.203	1.00	35.01	D
	ATOM	532	O	GLY	67D	30.549	96.586	53.659	1.00	34.04	D
	ATOM	533	N	PHE	68D	32.390	97.132	52.487	1.00	33.97	D
	ATOM	534	CA	PHE	68D	32.689	95.745	52.156	1.00	35.94	D
35	ATOM	535	CB	PHE	68D	31.895	95.344	50.916	1.00	36.57	D
	ATOM	536	CG	PHE	68D	32.234	96.163	49.708	1.00	37.62	D
	ATOM	537	CD1	PHE	68D	31.503	97.302	49.393	1.00	39.82	D
	ATOM	538	CD2	PHE	68D	33.329	95.836	48.914	1.00	40.59	D
	ATOM	539	CE1	PHE	68D	31.855	98.104	48.309	1.00	39.10	D
40	ATOM	540	CE2	PHE	68D	33.689	96.636	47.826	1.00	41.25	D
	ATOM	541	CZ	PHE	68D	32.949	97.769	47.526	1.00	39.41	D
	ATOM	542	C	PHE	68D	34.169	95.523	51.859	1.00	34.86	D
	ATOM	543	O	PHE	68D	34.895	96.466	51.555	1.00	35.84	D
	ATOM	544	N	GLU	69D	34.612	94.274	51.957	1.00	33.32	D
45	ATOM	545	CA	GLU	69D	35.989	93.944	51.610	1.00	32.23	D
	ATOM	546	CB	GLU	69D	36.819	93.507	52.812	1.00	30.52	D
	ATOM	547	CG	GLU	69D	38.269	93.286	52.409	1.00	30.24	D
	ATOM	548	CD	GLU	69D	39.181	92.904	53.555	1.00	33.08	D
	ATOM	549	OE1	GLU	69D	39.001	91.808	54.133	1.00	31.99	D
50	ATOM	550	OE2	GLU	69D	40.088	93.704	53.873	1.00	33.81	D
	ATOM	551	C	GLU	69D	35.991	92.821	50.584	1.00	32.02	D
	ATOM	552	O	GLU	69D	35.273	91.826	50.728	1.00	32.21	D
	ATOM	553	N	ILE	70D	36.793	92.989	49.542	1.00	31.77	D
	ATOM	554	CA	ILE	70D	36.905	91.980	48.497	1.00	31.09	D
55	ATOM	555	CB	ILE	70D	36.489	92.525	47.112	1.00	30.01	D
	ATOM	556	CG2	ILE	70D	36.667	91.435	46.063	1.00	30.54	D
	ATOM	557	CG1	ILE	70D	35.043	93.019	47.132	1.00	29.32	D
	ATOM	558	CD	ILE	70D	34.620	93.693	45.846	1.00	23.21	D
	ATOM	559	C	ILE	70D	38.350	91.517	48.374	1.00	31.52	D

	ATOM	560	O	ILE	70D	39.264	92.337	48.310	1.00	31.06	D
	ATOM	561	N	VAL	71D	38.556	90.204	48.359	1.00	31.11	D
	ATOM	562	CA	VAL	71D	39.894	89.652	48.195	1.00	32.10	D
	ATOM	563	CB	VAL	71D	40.321	88.795	49.397	1.00	32.27	D
5	ATOM	564	CG1	VAL	71D	41.736	88.264	49.170	1.00	32.02	D
	ATOM	565	CG2	VAL	71D	40.276	89.628	50.666	1.00	31.98	D
	ATOM	566	C	VAL	71D	39.829	88.795	46.937	1.00	32.86	D
	ATOM	567	O	VAL	71D	39.207	87.744	46.921	1.00	33.28	D
	ATOM	568	N	LEU	72D	40.464	89.275	45.879	1.00	33.70	D
10	ATOM	569	CA	LEU	72D	40.460	88.602	44.594	1.00	33.37	D
	ATOM	570	CB	LEU	72D	39.285	89.128	43.771	1.00	32.53	D
	ATOM	571	CG	LEU	72D	39.110	88.645	42.338	1.00	32.64	D
	ATOM	572	CD1	LEU	72D	38.861	87.143	42.331	1.00	31.36	D
	ATOM	573	CD2	LEU	72D	37.945	89.389	41.700	1.00	31.51	D
15	ATOM	574	C	LEU	72D	41.773	88.898	43.882	1.00	34.48	D
	ATOM	575	O	LEU	72D	42.278	90.012	43.954	1.00	35.76	D
	ATOM	576	N	ASN	73D	42.321	87.898	43.197	1.00	35.95	D
	ATOM	577	CA	ASN	73D	43.585	88.050	42.479	1.00	34.85	D
	ATOM	578	CB	ASN	73D	43.390	88.914	41.234	1.00	34.75	D
20	ATOM	579	CG	ASN	73D	42.491	88.255	40.213	1.00	35.52	D
	ATOM	580	OD1	ASN	73D	42.654	87.079	39.907	1.00	36.76	D
	ATOM	581	ND2	ASN	73D	41.540	89.009	39.677	1.00	33.15	D
	ATOM	582	C	ASN	73D	44.688	88.637	43.356	1.00	34.88	D
	ATOM	583	O	ASN	73D	45.478	89.470	42.914	1.00	34.38	D
25	ATOM	584	N	ASP	74D	44.736	88.178	44.603	1.00	35.59	D
	ATOM	585	CA	ASP	74D	45.727	88.626	45.573	1.00	34.82	D
	ATOM	586	CB	ASP	74D	47.124	88.189	45.147	1.00	35.59	D
	ATOM	587	CG	ASP	74D	47.383	86.732	45.453	1.00	34.88	D
	ATOM	588	OD1	ASP	74D	46.941	86.288	46.527	1.00	33.21	D
30	ATOM	589	OD2	ASP	74D	48.030	86.044	44.638	1.00	36.74	D
	ATOM	590	C	ASP	74D	45.711	90.115	45.868	1.00	34.33	D
	ATOM	591	O	ASP	74D	46.739	90.719	46.175	1.00	32.04	D
	ATOM	592	N	TYR	75D	44.523	90.698	45.767	1.00	34.42	D
	ATOM	593	CA	TYR	75D	44.333	92.100	46.069	1.00	33.61	D
35	ATOM	594	CB	TYR	75D	44.090	92.926	44.804	1.00	33.31	D
	ATOM	595	CG	TYR	75D	45.368	93.277	44.074	1.00	36.58	D
	ATOM	596	CD1	TYR	75D	45.812	92.511	42.989	1.00	33.13	D
	ATOM	597	CE1	TYR	75D	47.013	92.794	42.351	1.00	35.14	D
	ATOM	598	CD2	TYR	75D	46.163	94.345	44.501	1.00	34.19	D
40	ATOM	599	CE2	TYR	75D	47.375	94.637	43.870	1.00	37.25	D
	ATOM	600	CZ	TYR	75D	47.793	93.855	42.794	1.00	38.32	D
	ATOM	601	OH	TYR	75D	48.995	94.129	42.171	1.00	39.25	D
	ATOM	602	C	TYR	75D	43.143	92.224	46.992	1.00	32.51	D
	ATOM	603	O	TYR	75D	42.135	91.555	46.808	1.00	34.66	D
45	ATOM	604	N	LYS	76D	43.282	93.062	48.008	1.00	32.16	D
	ATOM	605	CA	LYS	76D	42.203	93.299	48.942	1.00	31.29	D
	ATOM	606	CB	LYS	76D	42.709	93.225	50.385	1.00	28.63	D
	ATOM	607	CG	LYS	76D	43.217	91.855	50.787	1.00	26.38	D
	ATOM	608	CD	LYS	76D	43.392	91.753	52.283	1.00	27.45	D
50	ATOM	609	CE	LYS	76D	43.816	90.362	52.703	1.00	26.33	D
	ATOM	610	NZ	LYS	76D	43.672	90.189	54.167	1.00	28.04	D
	ATOM	611	C	LYS	76D	41.646	94.686	48.644	1.00	33.70	D
	ATOM	612	O	LYS	76D	42.394	95.659	48.560	1.00	33.28	D
	ATOM	613	N	TRP	77D	40.335	94.762	48.441	1.00	35.54	D
55	ATOM	614	CA	TRP	77D	39.676	96.032	48.168	1.00	36.00	D
	ATOM	615	CB	TRP	77D	38.810	95.983	46.897	1.00	36.13	D
	ATOM	616	CG	TRP	77D	39.468	95.492	45.640	1.00	37.52	D
	ATOM	617	CD2	TRP	77D	39.717	96.255	44.450	1.00	37.97	D
	ATOM	618	CE2	TRP	77D	40.251	95.366	43.490	1.00	38.05	D

	ATOM	619	CE3	TRP	77D	39.536	97.604	44.102	1.00	39.70	D
	ATOM	620	CD1	TRP	77D	39.858	94.214	45.365	1.00	34.97	D
	ATOM	621	NE1	TRP	77D	40.323	94.129	44.074	1.00	39.36	D
	ATOM	622	CZ2	TRP	77D	40.610	95.776	42.201	1.00	39.78	D
5	ATOM	623	CZ3	TRP	77D	39.889	98.018	42.821	1.00	41.32	D
	ATOM	624	CH2	TRP	77D	40.422	97.102	41.881	1.00	43.28	D
	ATOM	625	C	TRP	77D	38.745	96.336	49.327	1.00	37.11	D
	ATOM	626	O	TRP	77D	38.015	95.461	49.807	1.00	35.79	D
	ATOM	627	N	PHE	78D	38.773	97.582	49.769	1.00	37.08	D
10	ATOM	628	CA	PHE	78D	37.898	98.011	50.834	1.00	38.94	D
	ATOM	629	CB	PHE	78D	38.583	97.915	52.194	1.00	38.02	D
	ATOM	630	CG	PHE	78D	37.881	98.709	53.253	1.00	38.34	D
	ATOM	631	CD1	PHE	78D	36.571	98.405	53.604	1.00	37.23	D
	ATOM	632	CD2	PHE	78D	38.486	99.823	53.822	1.00	39.26	D
15	ATOM	633	CE1	PHE	78D	35.870	99.196	54.497	1.00	37.38	D
	ATOM	634	CE2	PHE	78D	37.793	100.627	54.720	1.00	40.13	D
	ATOM	635	CZ	PHE	78D	36.480	100.314	55.057	1.00	39.92	D
	ATOM	636	C	PHE	78D	37.438	99.456	50.616	1.00	40.06	D
	ATOM	637	O	PHE	78D	38.204	100.313	50.157	1.00	39.19	D
20	ATOM	638	N	ALD	79D	36.183	99.718	50.967	1.00	39.24	D
	ATOM	639	CA	ALD	79D	35.620	101.051	50.841	1.00	38.82	D
	ATOM	640	CB	ALD	79D	35.361	101.388	49.356	1.00	36.80	D
	ATOM	641	C	ALD	79D	34.320	101.121	51.615	1.00	37.17	D
	ATOM	642	O	ALD	79D	33.622	100.119	51.739	1.00	35.18	D
25	ATOM	643	N	PHE	80D	34.019	102.301	52.156	1.00	38.42	D
	ATOM	644	CA	PHE	80D	32.763	102.531	52.863	1.00	36.14	D
	ATOM	645	CB	PHE	80D	32.893	103.684	53.864	1.00	35.01	D
	ATOM	646	CG	PHE	80D	33.690	103.346	55.091	1.00	32.12	D
	ATOM	647	CD1	PHE	80D	34.926	103.945	55.321	1.00	33.44	D
30	ATOM	648	CD2	PHE	80D	33.192	102.459	56.038	1.00	31.48	D
	ATOM	649	CE1	PHE	80D	35.661	103.668	56.482	1.00	31.32	D
	ATOM	650	CE2	PHE	80D	33.913	102.171	57.202	1.00	31.32	D
	ATOM	651	CZ	PHE	80D	35.152	102.780	57.423	1.00	31.85	D
	ATOM	652	C	PHE	80D	31.771	102.926	51.765	1.00	36.13	D
35	ATOM	653	O	PHE	80D	32.170	103.439	50.713	1.00	35.42	D
	ATOM	654	N	PHE	81D	30.486	102.672	51.997	1.00	36.65	D
	ATOM	655	CA	PHE	81D	29.447	103.013	51.010	1.00	38.86	D
	ATOM	656	CB	PHE	81D	28.112	102.401	51.425	1.00	38.89	D
	ATOM	657	CG	PHE	81D	27.997	100.922	51.102	1.00	37.80	D
40	ATOM	658	CD1	PHE	81D	28.077	99.976	52.124	1.00	37.44	D
	ATOM	659	CD2	PHE	81D	27.808	100.510	49.783	1.00	35.62	D
	ATOM	660	CE1	PHE	81D	27.960	98.617	51.828	1.00	38.03	D
	ATOM	661	CE2	PHE	81D	27.689	99.151	49.485	1.00	36.54	D
	ATOM	662	CZ	PHE	81D	27.764	98.204	50.507	1.00	38.97	D
45	ATOM	663	C	PHE	81D	29.285	104.533	50.917	1.00	38.77	D
	ATOM	664	O	PHE	81D	29.500	105.257	51.888	1.00	39.84	D
	ATOM	665	N	LYS	82D	28.892	104.999	49.722	1.00	39.16	D
	ATOM	666	CA	LYS	82D	28.713	106.444	49.501	1.00	39.63	D
	ATOM	667	CB	LYS	82D	28.523	106.767	48.011	1.00	39.47	D
50	ATOM	668	CG	LYS	82D	29.001	108.227	47.677	1.00	40.54	D
	ATOM	669	CD	LYS	82D	28.664	108.626	46.295	1.00	44.88	D
	ATOM	670	CE	LYS	82D	28.349	110.049	45.802	1.00	45.44	D
	ATOM	671	NZ	LYS	82D	29.423	110.581	44.929	1.00	45.43	D
	ATOM	672	C	LYS	82D	27.484	106.957	50.258	1.00	40.84	D
55	ATOM	673	O	LYS	82D	26.424	106.320	50.273	1.00	41.13	D
	ATOM	674	N	TYR	83D	27.637	108.109	50.879	1.00	40.99	D
	ATOM	675	CA	TYR	83D	26.533	108.706	51.637	1.00	40.95	D
	ATOM	676	CB	TYR	83D	26.606	108.251	53.096	1.00	39.67	D
	ATOM	677	CG	TYR	83D	27.874	108.711	53.799	1.00	40.75	D

	ATOM	678	CD1	TYR	83D	27.936	109.985	54.359	1.00	40.79	D
	ATOM	679	CE1	TYR	83D	29.098	110.419	54.994	1.00	40.62	D
	ATOM	680	CD2	TYR	83D	28.981	107.867	53.885	1.00	39.70	D
	ATOM	681	CE2	TYR	83D	30.147	108.299	54.517	1.00	41.68	D
5	ATOM	682	CZ	TYR	83D	30.206	109.578	55.070	1.00	42.16	D
	ATOM	683	OH	TYR	83D	31.350	110.011	55.681	1.00	41.02	D
	ATOM	684	C	TYR	83D	26.594	110.236	51.571	1.00	40.59	D
	ATOM	685	O	TYR	83D	27.659	110.826	51.368	1.00	40.43	D
	ATOM	686	N	GLU	84D	25.429	110.869	51.702	1.00	41.04	D
10	ATOM	687	CA	GLU	84D	25.316	112.324	51.687	1.00	41.84	D
	ATOM	688	CB	GLU	84D	24.456	112.793	50.510	1.00	44.34	D
	ATOM	689	CG	GLU	84D	24.164	114.297	50.522	1.00	49.23	D
	ATOM	690	CD	GLU	84D	23.071	114.699	49.541	1.00	52.74	D
	ATOM	691	OE1	GLU	84D	23.125	114.237	48.376	1.00	54.27	D
15	ATOM	692	OE2	GLU	84D	22.162	115.484	49.928	1.00	54.69	D
	ATOM	693	C	GLU	84D	24.646	112.757	52.990	1.00	40.03	D
	ATOM	694	O	GLU	84D	23.523	112.348	53.282	1.00	39.14	D
	ATOM	695	N	VAL	85D	25.325	113.581	53.774	1.00	39.37	D
	ATOM	696	CA	VAL	85D	24.742	114.029	55.025	1.00	40.47	D
20	ATOM	697	CB	VAL	85D	25.814	114.524	55.998	1.00	40.13	D
	ATOM	698	CG1	VAL	85D	25.149	115.062	57.263	1.00	37.58	D
	ATOM	699	CG2	VAL	85D	26.780	113.389	56.319	1.00	36.90	D
	ATOM	700	C	VAL	85D	23.724	115.147	54.816	1.00	42.17	D
	ATOM	701	O	VAL	85D	23.988	116.107	54.091	1.00	41.84	D
25	ATOM	702	N	LYS	86D	22.559	114.987	55.446	1.00	42.56	D
	ATOM	703	CA	LYS	86D	21.462	115.952	55.394	1.00	43.52	D
	ATOM	704	CB	LYS	86D	20.229	115.337	54.713	1.00	43.92	D
	ATOM	705	CG	LYS	86D	20.402	114.949	53.237	1.00	45.54	D
	ATOM	706	CD	LYS	86D	19.870	116.029	52.284	1.00	43.64	D
30	ATOM	707	CE	LYS	86D	20.535	117.383	52.523	1.00	44.32	D
	ATOM	708	NZ	LYS	86D	22.018	117.323	52.391	1.00	44.91	D
	ATOM	709	C	LYS	86D	21.120	116.264	56.857	1.00	45.49	D
	ATOM	710	O	LYS	86D	20.152	115.722	57.410	1.00	45.85	D
	ATOM	711	N	GLY	87D	21.914	117.116	57.494	1.00	45.28	D
35	ATOM	712	CA	GLY	87D	21.653	117.425	58.889	1.00	45.57	D
	ATOM	713	C	GLY	87D	22.011	116.277	59.826	1.00	46.67	D
	ATOM	714	O	GLY	87D	23.160	115.831	59.873	1.00	47.07	D
	ATOM	715	N	SER	88D	21.030	115.786	60.577	1.00	48.07	D
	ATOM	716	CA	SER	88D	21.289	114.699	61.519	1.00	49.55	D
40	ATOM	717	CB	SER	88D	20.407	114.840	62.764	1.00	48.09	D
	ATOM	718	OG	SER	88D	19.090	114.395	62.489	1.00	52.48	D
	ATOM	719	C	SER	88D	21.038	113.340	60.877	1.00	49.64	D
	ATOM	720	O	SER	88D	21.273	112.293	61.498	1.00	49.19	D
	ATOM	721	N	ARG	89D	20.532	113.362	59.646	1.00	49.72	D
45	ATOM	722	CA	ARG	89D	20.268	112.139	58.899	1.00	48.68	D
	ATOM	723	CB	ARG	89D	18.839	112.121	58.353	1.00	50.86	D
	ATOM	724	CG	ARG	89D	17.740	112.029	59.406	1.00	52.86	D
	ATOM	725	CD	ARG	89D	17.922	110.833	60.339	1.00	54.79	D
	ATOM	726	NE	ARG	89D	16.627	110.302	60.764	1.00	56.51	D
50	ATOM	727	CZ	ARG	89D	15.884	109.473	60.029	1.00	57.37	D
	ATOM	728	NH1	ARG	89D	16.315	109.068	58.837	1.00	56.45	D
	ATOM	729	NH2	ARG	89D	14.691	109.081	60.463	1.00	57.89	D
	ATOM	730	C	ARG	89D	21.250	112.098	57.740	1.00	48.17	D
	ATOM	731	O	ARG	89D	22.226	112.860	57.716	1.00	48.21	D
55	ATOM	732	N	ALD	90D	20.996	111.212	56.779	1.00	46.72	D
	ATOM	733	CA	ALD	90D	21.865	111.084	55.613	1.00	44.65	D
	ATOM	734	CB	ALD	90D	23.211	110.513	56.031	1.00	44.08	D
	ATOM	735	C	ALD	90D	21.240	110.195	54.545	1.00	43.04	D
	ATOM	736	O	ALD	90D	20.405	109.341	54.850	1.00	41.51	D

	ATOM	737	N	ILE	91D	21.632	110.417	53.292	1.00	42.02	D
	ATOM	738	CA	ILE	91D	21.145	109.603	52.175	1.00	41.76	D
	ATOM	739	CB	ILE	91D	20.830	110.462	50.932	1.00	40.76	D
	ATOM	740	CG2	ILE	91D	20.442	109.558	49.764	1.00	39.10	D
5	ATOM	741	CG1	ILE	91D	19.699	111.438	51.245	1.00	40.98	D
	ATOM	742	CD	ILE	91D	19.344	112.356	50.090	1.00	40.71	D
	ATOM	743	C	ILE	91D	22.230	108.583	51.793	1.00	40.39	D
	ATOM	744	O	ILE	91D	23.390	108.944	51.615	1.00	40.05	D
	ATOM	745	N	SER	92D	21.857	107.315	51.673	1.00	40.51	D
10	ATOM	746	CA	SER	92D	22.830	106.283	51.310	1.00	40.78	D
	ATOM	747	CB	SER	92D	22.594	105.006	52.120	1.00	38.14	D
	ATOM	748	OG	SER	92D	22.904	105.184	53.485	1.00	35.99	D
	ATOM	749	C	SER	92D	22.763	105.935	49.828	1.00	41.54	D
	ATOM	750	O	SER	92D	21.690	105.657	49.297	1.00	42.68	D
15	ATOM	751	N	TYR	93D	23.912	105.972	49.164	1.00	41.16	D
	ATOM	752	CA	TYR	93D	23.995	105.607	47.751	1.00	40.72	D
	ATOM	753	CB	TYR	93D	24.769	106.671	46.963	1.00	41.96	D
	ATOM	754	CG	TYR	93D	24.110	108.036	46.999	1.00	44.64	D
	ATOM	755	CD1	TYR	93D	24.514	109.009	47.922	1.00	46.34	D
20	ATOM	756	CE1	TYR	93D	23.873	110.256	47.993	1.00	46.11	D
	ATOM	757	CD2	TYR	93D	23.045	108.341	46.143	1.00	45.31	D
	ATOM	758	CE2	TYR	93D	22.392	109.580	46.205	1.00	45.89	D
	ATOM	759	CZ	TYR	93D	22.811	110.535	47.131	1.00	48.13	D
	ATOM	760	OH	TYR	93D	22.180	111.769	47.186	1.00	46.00	D
25	ATOM	761	C	TYR	93D	24.750	104.278	47.786	1.00	40.66	D
	ATOM	762	O	TYR	93D	25.964	104.229	47.566	1.00	39.98	D
	ATOM	763	N	CYS	94D	24.008	103.214	48.088	1.00	38.64	D
	ATOM	764	CA	CYS	94D	24.544	101.869	48.247	1.00	37.73	D
	ATOM	765	C	CYS	94D	25.080	101.163	46.999	1.00	39.66	D
30	ATOM	766	O	CYS	94D	25.513	99.999	47.059	1.00	35.82	D
	ATOM	767	CB	CYS	94D	23.492	100.999	48.929	1.00	36.43	D
	ATOM	768	SG	CYS	94D	22.951	101.651	50.547	1.00	39.15	D
	ATOM	769	N	HIS	95D	25.046	101.858	45.868	1.00	38.63	D
	ATOM	770	CA	HIS	95D	25.567	101.293	44.637	1.00	39.42	D
35	ATOM	771	CB	HIS	95D	24.539	101.396	43.510	1.00	40.91	D
	ATOM	772	CG	HIS	95D	23.369	100.481	43.684	1.00	43.86	D
	ATOM	773	CD2	HIS	95D	23.037	99.638	44.692	1.00	45.44	D
	ATOM	774	ND1	HIS	95D	22.373	100.358	42.738	1.00	45.86	D
	ATOM	775	CE1	HIS	95D	21.477	99.478	43.155	1.00	45.81	D
40	ATOM	776	NE2	HIS	95D	21.855	99.026	44.338	1.00	46.74	D
	ATOM	777	C	HIS	95D	26.835	102.041	44.277	1.00	38.27	D
	ATOM	778	O	HIS	95D	27.372	101.895	43.185	1.00	38.98	D
	ATOM	779	N	GLU	96D	27.312	102.845	45.218	1.00	37.66	D
	ATOM	780	CA	GLU	96D	28.534	103.614	45.032	1.00	37.52	D
45	ATOM	781	CB	GLU	96D	28.203	105.074	44.749	1.00	39.24	D
	ATOM	782	CG	GLU	96D	27.777	105.331	43.317	1.00	41.81	D
	ATOM	783	CD	GLU	96D	27.330	106.759	43.089	1.00	42.38	D
	ATOM	784	OE1	GLU	96D	26.115	107.033	43.235	1.00	42.36	D
	ATOM	785	OE2	GLU	96D	28.201	107.603	42.775	1.00	41.56	D
50	ATOM	786	C	GLU	96D	29.371	103.515	46.289	1.00	36.92	D
	ATOM	787	O	GLU	96D	28.907	103.006	47.304	1.00	38.19	D
	ATOM	788	N	THR	97D	30.605	104.001	46.232	1.00	37.24	D
	ATOM	789	CA	THR	97D	31.470	103.951	47.400	1.00	37.23	D
	ATOM	790	CB	THR	97D	32.582	102.883	47.253	1.00	36.05	D
55	ATOM	791	OG1	THR	97D	33.649	103.413	46.458	1.00	32.20	D
	ATOM	792	CG2	THR	97D	32.044	101.626	46.593	1.00	34.02	D
	ATOM	793	C	THR	97D	32.176	105.280	47.589	1.00	39.66	D
	ATOM	794	O	THR	97D	32.218	106.110	46.680	1.00	39.34	D
	ATOM	795	N	MET	98D	32.723	105.480	48.783	1.00	40.43	D

	ATOM	796	CA	MET	98D	33.505	106.675	49.059	1.00	41.24	D
	ATOM	797	CB	MET	98D	33.634	106.891	50.570	1.00	40.81	D
	ATOM	798	CG	MET	98D	32.307	107.191	51.279	1.00	43.49	D
	ATOM	799	SD	MET	98D	31.492	108.738	50.690	1.00	49.18	D
5	ATOM	800	CE	MET	98D	32.507	109.990	51.587	1.00	44.25	D
	ATOM	801	C	MET	98D	34.850	106.265	48.458	1.00	41.94	D
	ATOM	802	O	MET	98D	34.950	105.185	47.880	1.00	43.14	D
	ATOM	803	N	THR	99D	35.878	107.094	48.565	1.00	42.89	D
	ATOM	804	CA	THR	99D	37.170	106.702	48.014	1.00	43.20	D
10	ATOM	805	CB	THR	99D	38.178	107.882	48.005	1.00	42.98	D
	ATOM	806	OG1	THR	99D	37.683	108.927	47.158	1.00	43.70	D
	ATOM	807	CG2	THR	99D	39.530	107.430	47.470	1.00	42.38	D
	ATOM	808	C	THR	99D	37.715	105.580	48.893	1.00	43.41	D
	ATOM	809	O	THR	99D	37.849	105.744	50.108	1.00	43.67	D
15	ATOM	810	N	GLY	100D	38.019	104.440	48.282	1.00	43.83	D
	ATOM	811	CA	GLY	100D	38.530	103.313	49.045	1.00	42.40	D
	ATOM	812	C	GLY	100D	39.986	102.995	48.780	1.00	42.10	D
	ATOM	813	O	GLY	100D	40.622	103.627	47.934	1.00	43.23	D
	ATOM	814	N	TRP	101D	40.499	102.003	49.510	1.00	41.54	D
20	ATOM	815	CA	TRP	101D	41.885	101.544	49.407	1.00	38.65	D
	ATOM	816	CB	TRP	101D	42.539	101.507	50.786	1.00	37.60	D
	ATOM	817	CG	TRP	101D	42.518	102.784	51.555	1.00	38.17	D
	ATOM	818	CD2	TRP	101D	41.411	103.322	52.284	1.00	35.93	D
	ATOM	819	CE2	TRP	101D	41.865	104.490	52.932	1.00	37.52	D
25	ATOM	820	CE3	TRP	101D	40.075	102.925	52.456	1.00	36.75	D
	ATOM	821	CD1	TRP	101D	43.571	103.629	51.775	1.00	36.86	D
	ATOM	822	NE1	TRP	101D	43.187	104.654	52.605	1.00	39.16	D
	ATOM	823	CZ2	TRP	101D	41.034	105.269	53.745	1.00	36.93	D
	ATOM	824	CZ3	TRP	101D	39.246	103.698	53.264	1.00	37.33	D
30	ATOM	825	CH2	TRP	101D	39.732	104.859	53.899	1.00	37.88	D
	ATOM	826	C	TRP	101D	41.973	100.129	48.841	1.00	39.41	D
	ATOM	827	O	TRP	101D	41.215	99.246	49.236	1.00	39.32	D
	ATOM	828	N	VAL	102D	42.913	99.913	47.929	1.00	38.94	D
	ATOM	829	CA	VAL	102D	43.128	98.594	47.344	1.00	37.82	D
35	ATOM	830	CB	VAL	102D	42.640	98.521	45.880	1.00	38.60	D
	ATOM	831	CG1	VAL	102D	43.221	99.680	45.073	1.00	35.67	D
	ATOM	832	CG2	VAL	102D	43.059	97.186	45.261	1.00	36.17	D
	ATOM	833	C	VAL	102D	44.630	98.310	47.373	1.00	37.78	D
	ATOM	834	O	VAL	102D	45.440	99.186	47.080	1.00	36.73	D
40	ATOM	835	N	HIS	103D	45.001	97.092	47.736	1.00	37.51	D
	ATOM	836	CA	HIS	103D	46.410	96.735	47.793	1.00	38.11	D
	ATOM	837	CB	HIS	103D	47.040	97.318	49.070	1.00	39.51	D
	ATOM	838	CG	HIS	103D	46.432	96.814	50.348	1.00	41.39	D
	ATOM	839	CD2	HIS	103D	45.733	97.456	51.316	1.00	41.87	D
45	ATOM	840	ND1	HIS	103D	46.579	95.515	50.784	1.00	41.56	D
	ATOM	841	CE1	HIS	103D	46.003	95.380	51.967	1.00	42.43	D
	ATOM	842	NE2	HIS	103D	45.482	96.543	52.312	1.00	40.73	D
	ATOM	843	C	HIS	103D	46.595	95.219	47.728	1.00	37.50	D
	ATOM	844	O	HIS	103D	45.658	94.472	47.988	1.00	36.51	D
50	ATOM	845	N	ASP	104D	47.789	94.762	47.359	1.00	37.38	D
	ATOM	846	CA	ASP	104D	48.023	93.317	47.293	1.00	36.88	D
	ATOM	847	CB	ASP	104D	49.329	93.001	46.551	1.00	36.02	D
	ATOM	848	CG	ASP	104D	50.524	93.688	47.155	1.00	38.57	D
	ATOM	849	OD1	ASP	104D	51.186	94.456	46.416	1.00	38.16	D
55	ATOM	850	OD2	ASP	104D	50.808	93.461	48.357	1.00	35.46	D
	ATOM	851	C	ASP	104D	48.035	92.750	48.712	1.00	35.42	D
	ATOM	852	O	ASP	104D	48.210	93.488	49.681	1.00	34.95	D
	ATOM	853	N	VAL	105D	47.838	91.444	48.831	1.00	33.60	D
	ATOM	854	CA	VAL	105D	47.769	90.792	50.133	1.00	32.29	D

	ATOM	855	CB	VAL	105D	47.521	89.274	49.957	1.00	31.63	D
	ATOM	856	CG1	VAL	105D	46.235	89.054	49.171	1.00	30.32	D
	ATOM	857	CG2	VAL	105D	48.682	88.630	49.237	1.00	27.80	D
	ATOM	858	C	VAL	105D	48.952	91.020	51.081	1.00	33.05	D
5	ATOM	859	O	VAL	105D	48.867	90.701	52.268	1.00	31.76	D
	ATOM	860	N	LEU	106D	50.040	91.583	50.561	1.00	32.31	D
	ATOM	861	CA	LEU	106D	51.229	91.860	51.364	1.00	31.31	D
	ATOM	862	CB	LEU	106D	52.489	91.470	50.582	1.00	30.02	D
	ATOM	863	CG	LEU	106D	52.719	89.972	50.356	1.00	31.66	D
10	ATOM	864	CD1	LEU	106D	53.697	89.765	49.220	1.00	25.76	D
	ATOM	865	CD2	LEU	106D	53.218	89.329	51.648	1.00	27.26	D
	ATOM	866	C	LEU	106D	51.313	93.337	51.771	1.00	32.32	D
	ATOM	867	O	LEU	106D	52.147	93.725	52.587	1.00	32.18	D
	ATOM	868	N	GLY	107D	50.441	94.156	51.196	1.00	32.88	D
15	ATOM	869	CA	GLY	107D	50.449	95.572	51.501	1.00	33.74	D
	ATOM	870	C	GLY	107D	51.558	96.310	50.772	1.00	34.80	D
	ATOM	871	O	GLY	107D	51.879	97.454	51.103	1.00	34.00	D
	ATOM	872	N	ARG	108D	52.141	95.660	49.769	1.00	34.65	D
	ATOM	873	CA	ARG	108D	53.232	96.259	48.998	1.00	35.31	D
20	ATOM	874	CB	ARG	108D	53.933	95.179	48.168	1.00	35.78	D
	ATOM	875	CG	ARG	108D	54.519	94.035	48.985	1.00	35.90	D
	ATOM	876	CD	ARG	108D	55.792	94.430	49.720	1.00	34.67	D
	ATOM	877	NE	ARG	108D	56.436	93.251	50.283	1.00	34.30	D
	ATOM	878	CZ	ARG	108D	56.230	92.796	51.513	1.00	34.94	D
25	ATOM	879	NH1	ARG	108D	55.404	93.438	52.326	1.00	33.52	D
	ATOM	880	NH2	ARG	108D	56.815	91.672	51.916	1.00	34.11	D
	ATOM	881	C	ARG	108D	52.780	97.405	48.077	1.00	35.34	D
	ATOM	882	O	ARG	108D	53.201	98.546	48.255	1.00	33.84	D
	ATOM	883	N	ASN	109D	51.933	97.098	47.097	1.00	34.21	D
30	ATOM	884	CA	ASN	109D	51.442	98.113	46.167	1.00	34.56	D
	ATOM	885	CB	ASN	109D	51.503	97.582	44.734	1.00	33.46	D
	ATOM	886	CG	ASN	109D	52.920	97.361	44.268	1.00	36.30	D
	ATOM	887	OD1	ASN	109D	53.777	98.209	44.475	1.00	37.28	D
	ATOM	888	ND2	ASN	109D	53.177	96.223	43.634	1.00	37.52	D
35	ATOM	889	C	ASN	109D	50.018	98.595	46.479	1.00	34.94	D
	ATOM	890	O	ASN	109D	49.076	97.804	46.526	1.00	33.89	D
	ATOM	891	N	TRP	110D	49.864	99.898	46.679	1.00	34.48	D
	ATOM	892	CA	TRP	110D	48.552	100.464	46.992	1.00	35.17	D
	ATOM	893	CB	TRP	110D	48.587	101.226	48.316	1.00	32.70	D
40	ATOM	894	CG	TRP	110D	48.878	100.400	49.530	1.00	34.21	D
	ATOM	895	CD2	TRP	110D	48.083	100.329	50.726	1.00	33.47	D
	ATQM	896	CE2	TRP	110D	48.787	99.521	51.650	1.00	33.75	D
	ATOM	897	CE3	TRP	110D	46.848	100.876	51.109	1.00	32.14	D
	ATOM	898	CD1	TRP	110D	49.994	99.645	49.768	1.00	34.45	D
45	ATOM	899	NE1	TRP	110D	49.948	99.118	51.042	1.00	35.76	D
	ATOM	900	CZ2	TRP	110D	48.298	99.246	52.933	1.00	31.68	D
	ATOM	901	CZ3	TRP	110D	46.363	100.602	52.392	1.00	31.39	D
	ATOM	902	CH2	TRP	110D	47.088	99.796	53.283	1.00	30.25	D
	ATOM	903	C	TRP	110D	48.030	101.412	45.924	1.00	36.33	D
50	ATOM	904	O	TRP	110D	48.759	101.858	45.038	1.00	36.49	D
	ATOM	905	N	ALA	111D	46.748	101.728	46.035	1.00	36.87	D
	ATOM	906	CA	ALA	111D	46.094	102.641	45.116	1.00	37.24	D
	ATOM	907	CB	ALA	111D	45.919	101.986	43.762	1.00	35.55	D
	ATOM	908	C	ALA	111D	44.741	102.974	45.715	1.00	37.20	D
55	ATOM	909	O	ALA	111D	44.213	102.211	46.519	1.00	39.28	D
	ATOM	910	N	CYS	112D	44.189	104.122	45.349	1.00	37.49	D
	ATOM	911	CA	CYS	112D	42.879	104.506	45.847	1.00	37.32	D
	ATOM	912	C	CYS	112D	41.909	104.167	44.729	1.00	36.72	D
	ATOM	913	O	CYS	112D	42.304	104.075	43.566	1.00	35.91	D

	ATOM	914	CB	CYS	112D	42.832	106.000	46.149	1.00	37.03	D
	ATOM	915	SG	CYS	112D	44.076	106.557	47.353	1.00	43.03	D
	ATOM	916	N	PHE	113D	40.645	103.974	45.070	1.00	36.33	D
	ATOM	917	CA	PHE	113D	39.661	103.643	44.051	1.00	36.32	D
5	ATOM	918	CB	PHE	113D	39.653	102.126	43.802	1.00	33.39	D
	ATOM	919	CG	PHE	113D	38.877	101.334	44.831	1.00	33.68	D
	ATOM	920	CD1	PHE	113D	37.534	101.022	44.623	1.00	32.68	D
	ATOM	921	CD2	PHE	113D	39.487	100.901	46.005	1.00	31.95	D
	ATOM	922	CE1	PHE	113D	36.815	100.292	45.561	1.00	32.07	D
10	ATOM	923	CE2	PHE	113D	38.772	100.168	46.950	1.00	31.07	D
	ATOM	924	CZ	PHE	113D	37.436	99.864	46.725	1.00	31.20	D
	ATOM	925	C	PHE	113D	38.270	104.103	44.454	1.00	37.28	D
	ATOM	926	O	PHE	113D	38.016	104.417	45.619	1.00	37.88	D
	ATOM	927	N	VAL	114D	37.382	104.156	43.470	1.00	38.19	D
15	ATOM	928	CA	VAL	114D	35.999	104.531	43.701	1.00	39.37	D
	ATOM	929	CB	VAL	114D	35.670	105.936	43.156	1.00	41.84	D
	ATOM	930	CG1	VAL	114D	34.156	106.193	43.233	1.00	41.72	D
	ATOM	931	CG2	VAL	114D	36.376	106.965	43.982	1.00	43.04	D
	ATOM	932	C	VAL	114D	35.179	103.510	42.948	1.00	39.00	D
20	ATOM	933	O	VAL	114D	35.546	103.110	41.847	1.00	41.12	D
	ATOM	934	N	GLY	115D	34.077	103.082	43.540	1.00	39.39	D
	ATOM	935	CA	GLY	115D	33.255	102.103	42.872	1.00	39.84	D
	ATOM	936	C	GLY	115D	31.835	102.538	42.585	1.00	40.57	D
	ATOM	937	O	GLY	115D	31.214	103.267	43.363	1.00	37.96	D
25	ATOM	938	N	LYS	116D	31.335	102.098	41.434	1.00	40.96	D
	ATOM	939	CA	LYS	116D	29.966	102.366	41.030	1.00	44.38	D
	ATOM	940	CB	LYS	116D	29.892	103.420	39.927	1.00	45.69	D
	ATOM	941	CG	LYS	116D	28.459	103.812	39.574	1.00	48.45	D
	ATOM	942	CD	LYS	116D	28.423	104.832	38.435	1.00	52.22	D
30	ATOM	943	CE	LYS	116D	26.984	105.200	38.045	1.00	55.49	D
	ATOM	944	NZ	LYS	116D	26.941	106.222	36.920	1.00	56.81	D
	ATOM	945	C	LYS	116D	29.437	101.033	40.521	1.00	45.21	D
	ATOM	946	O	LYS	116D	30.026	100.409	39.641	1.00	45.69	D
	ATOM	947	N	LYS	117D	28.353	100.585	41.055	1.00	46.45	D
35	ATOM	948	CA	LYS	117D	27.762	99.269	40.743	1.00	49.63	D
	ATOM	949	CB	LYS	117D	26.739	98.954	41.804	1.00	47.60	D
	ATOM	950	CG	LYS	117D	26.350	97.501	41.861	1.00	45.85	D
	ATOM	951	CD	LYS	117D	25.288	97.276	42.907	1.00	46.74	D
	ATOM	952	CE	LYS	117D	24.659	95.909	42.845	1.00	45.21	D
40	ATOM	953	NZ	LYS	117D	23.439	95.830	43.651	1.00	46.48	D
	ATOM	954	C	LYS	117D	27.088	99.342	39.387	1.00	51.95	D
	ATOM	955	O	LYS	117D	26.803	100.397	38.821	1.00	52.94	D
	ATOM	956	N	MET	118D	26.776	98.288	38.722	1.00	56.26	D
	ATOM	957	CA	MET	118D	26.097	98.601	37.459	1.00	60.51	D
45	ATOM	958	CB	MET	118D	27.060	98.389	36.218	1.00	62.19	D
	ATOM	959	CG	MET	118D	27.382	97.013	35.788	1.00	64.16	D
	ATOM	960	SD	MET	118D	27.917	96.860	34.069	1.00	71.85	D
	ATOM	961	CE	MET	118D	29.712	96.808	33.998	1.00	66.22	D
	ATOM	962	C	MET	118D	24.817	97.846	37.464	1.00	62.12	D
50	ATOM	963	O	MET	118D	24.172	97.795	38.539	1.00	62.77	D
	ATOM	964	CB	LEU	204D	38.087	69.144	68.539	1.00	60.76	D
	ATOM	965	CG	LEU	204D	38.266	69.808	69.913	1.00	63.17	D
	ATOM	966	CD1	LEU	204D	39.550	69.288	70.598	1.00	61.64	D
	ATOM	967	CD2	LEU	204D	38.338	71.324	69.737	1.00	63.24	D
55	ATOM	968	C	LEU	204D	35.956	68.124	69.306	1.00	57.86	D
	ATOM	969	O	LEU	204D	35.075	68.822	68.789	1.00	59.03	D
	ATOM	970	N	LEU	204D	37.070	67.338	67.170	1.00	59.06	D
	ATOM	971	CA	LEU	204D	37.267	67.850	68.564	1.00	59.27	D
	ATOM	972	N	SER	205D	35.827	67.572	70.514	1.00	54.67	D

	ATOM	973	CA	SER	205D	34.637	67.794	71.341	1.00	51.99	D
	ATOM	974	CB	SER	205D	34.311	66.541	72.163	1.00	51.92	D
	ATOM	975	OG	SER	205D	33.551	65.602	71.415	1.00	50.74	D
	ATOM	976	C	SER	205D	34.915	68.975	72.286	1.00	49.72	D
5	ATOM	977	O	SER	205D	35.851	68.922	73.085	1.00	48.73	D
	ATOM	978	N	LEU	206D	34.106	70.032	72.198	1.00	47.50	D
	ATOM	979	CA	LEU	206D	34.302	71.220	73.037	1.00	45.23	D
	ATOM	980	CB	LEU	206D	33.571	72.420	72.432	1.00	45.07	D
	ATOM	981	CG	LEU	206D	34.000	72.837	71.024	1.00	45.79	D
10	ATOM	982	CD1	LEU	206D	33.040	73.865	70.478	1.00	44.15	D
	ATOM	983	CD2	LEU	206D	35.410	73.390	71.057	1.00	48.05	D
	ATOM	984	C	LEU	206D	33.821	71.011	74.467	1.00	44.04	D
	ATOM	985	O	LEU	206D	32.842	70.307	74.703	1.00	42.90	D
	ATOM	986	N	PRO	207D	34.510	71.619	75.444	1.00	43.73	D
15	ATOM	987	CD	PRO	207D	35.737	72.429	75.320	1.00	44.29	D
	ATOM	988	CA	PRO	207D	34.113	71.477	76.852	1.00	43.66	D
	ATOM	989	CB	PRO	207D	35.292	72.085	77.609	1.00	42.25	D
	ATOM	990	CG	PRO	207D	35.778	73.157	76.662	1.00	43.03	D
	ATOM	991	C	PRO	207D	32.810	72.211	77.131	1.00	44.45	D
20	ATOM	992	O	PRO	207D	32.441	73.131	76.391	1.00	42.69	D
	ATOM	993	N	GLU	208D	32.121	71.805	78.199	1.00	45.03	D
	ATOM	994	CA	GLU	208D	30.853	72.421	78.579	1.00	45.59	D
	ATOM	995	CB	GLU	208D	30.146	71.584	79.662	1.00	49.91	D
	ATOM	996	CG	GLU	208D	28.730	72.099	79.992	1.00	58.35	D
25	ATOM	997	CD	GLU	208D	27.942	71.190	80.946	1.00	63.73	D
	ATOM	998	OE1	GLU	208D	27.791	69.977	80.633	1.00	64.92	D
	ATOM	999	OE2	GLU	208D	27.460	71.697	82.002	1.00	64.51	D
	ATOM	1000	C	GLU	208D	31.046	73.851	79.078	1.00	43.40	D
	ATOM	1001	O	GLU	208D	30.097	74.630	79.129	1.00	43.14	D
30	ATOM	1002	N	SER	209D	32.275	74.192	79.448	1.00	41.64	D
	ATOM	1003	CA	SER	209D	32.578	75.534	79.942	1.00	42.98	D
	ATOM	1004	CB	SER	209D	32.496	75.598	81.472	1.00	41.86	D
	ATOM	1005	OG	SER	209D	31.157	75.503	81.909	1.00	46.88	D
	ATOM	1006	C	SER	209D	33.963	75.968	79.543	1.00	41.34	D
35	ATOM	1007	O	SER	209D	34.845	75.143	79.319	1.00	41.63	D
	ATOM	1008	N	TRP	210D	34.150	77.277	79.463	1.00	39.80	D
	ATOM	1009	CA	TRP	210D	35.447	77.825	79.130	1.00	39.50	D
	ATOM	1010	CB	TRP	210D	35.685	77.803	77.622	1.00	39.54	D
	ATOM	1011	CG	TRP	210D	37.121	77.977	77.301	1.00	40.74	D
40	ATOM	1012	CD2	TRP	210D	38.144	76.983	77.414	1.00	42.13	D
	ATOM	1013	CE2	TRP	210D	39.364	77.598	77.062	1.00	43.40	D
	ATOM	1014	CE3	TRP	210D	38.148	75.627	77.780	1.00	41.72	D
	ATOM	1015	CD1	TRP	210D	37.742	79.122	76.898	1.00	41.01	D
	ATOM	1016	NE1	TRP	210D	39.090	78.905	76.751	1.00	43.32	D
45	ATOM	1017	CZ2	TRP	210D	40.580	76.904	77.062	1.00	43.55	D
	ATOM	1018	CZ3	TRP	210D	39.354	74.938	77.780	1.00	41.80	D
	ATOM	1019	CH2	TRP	210D	40.553	75.578	77.423	1.00	42.60	D
	ATOM	1020	C	TRP	210D	35.519	79.245	79.650	1.00	38.40	D
	ATOM	1021	O	TRP	210D	34.513	79.943	79.709	1.00	38.62	D
50	ATOM	1022	N	ASP	211D	36.716	79.663	80.032	1.00	37.90	D
	ATOM	1023	CA	ASP	211D	36.919	80.992	80.565	1.00	39.42	D
	ATOM	1024	CB	ASP	211D	36.543	81.020	82.051	1.00	40.30	D
	ATOM	1025	CG	ASP	211D	36.527	82.425	82.626	1.00	42.13	D
	ATOM	1026	OD1	ASP	211D	37.358	83.269	82.212	1.00	41.61	D
55	ATOM	1027	OD2	ASP	211D	35.684	82.684	83.508	1.00	44.89	D
	ATOM	1028	C	ASP	211D	38.394	81.303	80.408	1.00	38.98	D
	ATOM	1029	O	ASP	211D	39.226	80.755	81.136	1.00	40.10	D
	ATOM	1030	N	TRP	212D	38.724	82.180	79.467	1.00	37.88	D
	ATOM	1031	CA	TRP	212D	40.124	82.523	79.242	1.00	37.19	D

	ATOM	1032	CB	TRP	212D	40.271	83.322	77.950	1.00	34.20	D
	ATOM	1033	CG	TRP	212D	40.287	82.437	76.747	1.00	34.97	D
	ATOM	1034	CD2	TRP	212D	41.299	81.486	76.406	1.00	33.58	D
	ATOM	1035	CE2	TRP	212D	40.894	80.855	75.208	1.00	32.11	D
5	ATOM	1036	CE3	TRP	212D	42.512	81.106	76.997	1.00	33.15	D
	ATOM	1037	CD1	TRP	212D	39.334	82.347	75.771	1.00	34.50	D
	ATOM	1038	NE1	TRP	212D	39.692	81.400	74.846	1.00	31.73	D
	ATOM	1039	CZ2	TRP	212D	41.659	79.859	74.589	1.00	31.38	D
	ATOM	1040	CZ3	TRP	212D	43.276	80.114	76.381	1.00	33.67	D
10	ATOM	1041	CH2	TRP	212D	42.842	79.503	75.187	1.00	31.45	D
	ATOM	1042	C	TRP	212D	40.786	83.259	80.398	1.00	36.01	D
	ATOM	1043	O	TRP	212D	41.961	83.612	80.329	1.00	35.38	D
	ATOM	1044	N	ARG	213D	40.030	83.487	81.463	1.00	36.60	D
	ATOM	1045	CA	ARG	213D	40.572	84.162	82.633	1.00	39.10	D
15	ATOM	1046	CB	ARG	213D	39.511	85.033	83.311	1.00	38.63	D
	ATOM	1047	CG	ARG	213D	39.082	86.256	82.515	1.00	40.76	D
	ATOM	1048	CD	ARG	213D	37.901	86.937	83.184	1.00	40.47	D
	ATOM	1049	NE	ARG	213D	36.779	86.020	83.389	1.00	40.24	D
	ATOM	1050	CZ	ARG	213D	35.657	86.344	84.026	1.00	42.14	D
20	ATOM	1051	NH1	ARG	213D	35.504	87.566	84.523	1.00	42.64	D
	ATOM	1052	NH2	ARG	213D	34.684	85.454	84.169	1.00	41.28	D
	ATOM	1053	C	ARG	213D	41.036	83.106	83.614	1.00	39.11	D
	ATOM	1054	O	ARG	213D	41.698	83.415	84.597	1.00	41.12	D
	ATOM	1055	N	ASN	214D	40.688	81.855	83.336	1.00	39.70	D
25	ATOM	1056	CA	ASN	214D	41.053	80.755	84.216	1.00	40.84	D
	ATOM	1057	CB	ASN	214D	40.066	80.693	85.389	1.00	41.89	D
	ATOM	1058	CG	ASN	214D	40.378	79.572	86.379	1.00	44.07	D
	ATOM	1059	OD1	ASN	214D	39.773	79.512	87.443	1.00	48.05	D
	ATOM	1060	ND2	ASN	214D	41.310	78.681	86.033	1.00	42.55	D
30	ATOM	1061	C	ASN	214D	41.093	79.421	83.479	1.00	40.29	D
	ATOM	1062	O	ASN	214D	40.138	78.644	83.488	1.00	39.26	D
	ATOM	1063	N	VAL	215D	42.218	79.174	82.829	1.00	41.48	D
	ATOM	1064	CA	VAL	215D	42.417	77.938	82.106	1.00	42.51	D
	ATOM	1065	CB	VAL	215D	42.934	78.194	80.685	1.00	41.57	D
35	ATOM	1066	CG1	VAL	215D	43.217	76.869	79.987	1.00	40.74	D
	ATOM	1067	CG2	VAL	215D	41.905	78.997	79.914	1.00	40.54	D
	ATOM	1068	C	VAL	215D	43.457	77.200	82.912	1.00	43.98	D
	ATOM	1069	O	VAL	215D	44.653	77.497	82.839	1.00	42.91	D
	ATOM	1070	N	ARG	216D	42.981	76.254	83.712	1.00	47.02	D
40	ATOM	1071	CA	ARG	216D	43.855	75.472	84.560	1.00	48.40	D
	ATOM	1072	CB	ARG	216D	44.790	74.630	83.679	1.00	50.63	D
	ATOM	1073	CG	ARG	216D	44.046	73.425	83.067	1.00	55.55	D
	ATOM	1074	CD	ARG	216D	44.621	72.913	81.730	1.00	57.36	D
	ATOM	1075	NE	ARG	216D	46.018	72.494	81.815	1.00	59.32	D
45	ATOM	1076	CZ	ARG	216D	46.487	71.332	81.349	1.00	61.88	D
	ATOM	1077	NH1	ARG	216D	45.673	70.458	80.764	1.00	61.15	D
	ATOM	1078	NH2	ARG	216D	47.786	71.039	81.462	1.00	62.48	D
	ATOM	1079	C	ARG	216D	44.609	76.426	85.479	1.00	47.55	D
	ATOM	1080	O	ARG	216D	45.812	76.274	85.710	1.00	49.30	D
50	ATOM	1081	N	GLY	217D	43.875	77.424	85.980	1.00	45.20	D
	ATOM	1082	CA	GLY	217D	44.429	78.411	86.895	1.00	42.32	D
	ATOM	1083	C	GLY	217D	45.088	79.640	86.293	1.00	42.42	D
	ATOM	1084	O	GLY	217D	45.342	80.627	86.994	1.00	42.79	D
	ATOM	1085	N	ILE	218D	45.360	79.600	84.994	1.00	41.93	D
55	ATOM	1086	CA	ILE	218D	46.015	80.715	84.320	1.00	40.79	D
	ATOM	1087	CB	ILE	218D	46.906	80.217	83.165	1.00	42.89	D
	ATOM	1088	CG2	ILE	218D	47.895	81.319	82.774	1.00	42.09	D
	ATOM	1089	CG1	ILE	218D	47.621	78.915	83.558	1.00	44.62	D
	ATOM	1090	CD	ILE	218D	48.589	79.056	84.727	1.00	44.91	D

195

	ATOM	1091	C	ILE	218D	45.054	81.737	83.711	1.00	39.93	D
	ATOM	1092	O	ILE	218D	44.004	81.377	83.179	1.00	39.30	D
	ATOM	1093	N	ASN	219D	45.423	83.012	83.784	1.00	38.06	D
	ATOM	1094	CA	ASN	219D	44.611	84.062	83.180	1.00	38.18	D
5	ATOM	1095	CB	ASN	219D	44.439	85.250	84.126	1.00	37.26	D
	ATOM	1096	CG	ASN	219D	43.927	86.499	83.406	1.00	42.75	D
	ATOM	1097	OD1	ASN	219D	42.829	86.504	82.833	1.00	43.24	D
	ATOM	1098	ND2	ASN	219D	44.727	87.564	83.427	1.00	42.67	D
	ATOM	1099	C	ASN	219D	45.324	84.537	81.919	1.00	36.57	D
10	ATOM	1100	O	ASN	219D	46.535	84.717	81.928	1.00	37.77	D
	ATOM	1101	N	PHE	220D	44.585	84.728	80.834	1.00	35.18	D
	ATOM	1102	CA	PHE	220D	45.194	85.203	79.598	1.00	34.39	D
	ATOM	1103	CB	PHE	220D	45.045	84.176	78.471	1.00	34.19	D
	ATOM	1104	CG	PHE	220D	45.728	82.865	78.733	1.00	33.94	D
15	ATOM	1105	CD1	PHE	220D	45.070	81.844	79.405	1.00	34.39	D
	ATOM	1106	CD2	PHE	220D	47.022	82.638	78.278	1.00	34.54	D
	ATOM	1107	CE1	PHE	220D	45.686	80.608	79.616	1.00	34.94	D
	ATOM	1108	CE2	PHE	220D	47.646	81.407	78.485	1.00	36.85	D
	ATOM	1109	CZ	PHE	220D	46.971	80.389	79.157	1.00	34.41	D
20	ATOM	1110	C	PHE	220D	44.560	86.507	79.135	1.00	35.50	D
	ATOM	1111	O	PHE	220D	44.900	87.015	78.070	1.00	38.07	D
	ATOM	1112	N	VAL	221D	43.638	87.051	79.922	1.00	34.77	D
	ATOM	1113	CA	VAL	221D	42.966	88.286	79.530	1.00	34.31	D
	ATOM	1114	CB	VAL	221D	41.442	88.225	79.865	1.00	32.66	D
25	ATOM	1115	CG1	VAL	221D	40.719	89.403	79.232	1.00	30.25	D
	ATOM	1116	CG2	VAL	221D	40.850	86.912	79.387	1.00	28.53	D
	ATOM	1117	C	VAL	221D	43.571	89.523	80.192	1.00	35.79	D
	ATOM	1118	O	VAL	221D	43.831	89.536	81.396	1.00	37.58	D
	ATOM	1119	N	SER	222D	43.795	90.559	79.389	1.00	37.78	D
30	ATOM	1120	CA	SER	222D	44.354	91.817	79.869	1.00	37.88	D
	ATOM	1121	CB	SER	222D	44.743	92.714	78.689	1.00	36.20	D
	ATOM	1122	OG	SER	222D	43.600	93.162	77.982	1.00	37.10	D
	ATOM	1123	C	SER	222D	43.297	92.499	80.742	1.00	40.28	D
	ATOM	1124	O	SER	222D	42.116	92.152	80.680	1.00	41.12	D
35	ATOM	1125	N	PRO	223D	43.706	93.486	81.558	1.00	41.46	D
	ATOM	1126	CD	PRO	223D	45.095	93.916	81.800	1.00	41.70	D
	ATOM	1127	CA	PRO	223D	42.783	94.201	82.450	1.00	42.55	D
	ATOM	1128	CB	PRO	223D	43.724	95.063	83.303	1.00	41.62	D
	ATOM	1129	CG	PRO	223D	45.040	94.318	83.251	1.00	41.09	D
40	ATOM	1130	C	PRO	223D	41.692	95.044	81.786	1.00	43.22	D
	ATOM	1131	O	PRO	223D	41.867	95.563	80.681	1.00	44.82	D
	ATOM	1132	N	VAL	224D	40.565	95.173	82.480	1.00	42.02	D
	ATOM	1133	CA	VAL	224D	39.449	95.972	82.007	1.00	39.95	D
	ATOM	1134	CB	VAL	224D	38.248	95.867	82.969	1.00	40.39	D
45	ATOM	1135	CG1	VAL	224D	37.140	96.810	82.529	1.00	39.21	D
	ATOM	1136	CG2	VAL	224D	37.738	94.432	83.013	1.00	38.24	D
	ATOM	1137	C	VAL	224D	39.906	97.430	81.942	1.00	40.52	D
	ATOM	1138	O	VAL	224D	40.742	97.877	82.731	1.00	39.90	D
	ATOM	1139	N	ARG	225D	39.360	98.167	80.988	1.00	40.16	D
50	ATOM	1140	CA	ARG	225D	39.701	99.569	80.821	1.00	39.12	D
	ATOM	1141	CB	ARG	225D	40.542	99.764	79.559	1.00	40.37	D
	ATOM	1142	CG	ARG	225D	41.856	99.014	79.583	1.00	38.54	D
	ATOM	1143	CD	ARG	225D	42.766	99.510	78.475	1.00	40.13	D
	ATOM	1144	NE	ARG	225D	43.212	100.880	78.700	1.00	36.10	D
55	ATOM	1145	CZ	ARG	225D	44.066	101.527	77.911	1.00	37.08	D
	ATOM	1146	NH1	ARG	225D	44.564	100.932	76.835	1.00	36.45	D
	ATOM	1147	NH2	ARG	225D	44.447	102.761	78.216	1.00	37.85	D
	ATOM	1148	C	ARG	225D	38.408	100.358	80.719	1.00	39.00	D
	ATOM	1149	O	ARG	225D	37.324	99.775	80.748	1.00	36.32	D

	ATOM	1150	N	ASN	226D	38.517	101.679	80.601	1.00	39.77	D
	ATOM	1151	CA	ASN	226D	37.333	102.528	80.505	1.00	40.94	D
	ATOM	1152	CB	ASN	226D	37.168	103.346	81.788	1.00	41.93	D
	ATOM	1153	CG	ASN	226D	35.756	103.841	81.979	1.00	43.59	D
5	ATOM	1154	OD1	ASN	226D	35.111	104.302	81.036	1.00	44.46	D
	ATOM	1155	ND2	ASN	226D	35.262	103.751	83.207	1.00	43.95	D
	ATOM	1156	C	ASN	226D	37.447	103.474	79.312	1.00	40.33	D
	ATOM	1157	O	ASN	226D	38.339	104.322	79.275	1.00	40.17	D
10	ATOM	1158	N	GLN	227D	36.536	103.329	78.350	1.00	39.53	D
	ATOM	1159	CA	GLN	227D	36.534	104.161	77.145	1.00	40.81	D
	ATOM	1160	CB	GLN	227D	35.617	103.533	76.074	1.00	39.19	D
	ATOM	1161	CG	GLN	227D	34.123	103.712	76.332	1.00	39.71	D
	ATOM	1162	CD	GLN	227D	33.242	102.871	75.422	1.00	39.59	D
	ATOM	1163	OE1	GLN	227D	32.973	101.708	75.705	1.00	41.91	D
15	ATOM	1164	NE2	GLN	227D	32.791	103.457	74.320	1.00	39.77	D
	ATOM	1165	C	GLN	227D	36.064	105.589	77.468	1.00	41.13	D
	ATOM	1166	O	GLN	227D	36.213	106.508	76.653	1.00	38.36	D
	ATOM	1167	N	GLU	228D	35.506	105.758	78.666	1.00	41.73	D
	ATOM	1168	CA	GLU	228D	34.990	107.048	79.131	1.00	42.48	D
20	ATOM	1169	CB	GLU	228D	36.143	108.033	79.368	1.00	42.68	D
	ATOM	1170	CG	GLU	228D	37.233	107.512	80.314	1.00	44.71	D
	ATOM	1171	CD	GLU	228D	36.752	107.286	81.760	1.00	48.49	D
	ATOM	1172	OE1	GLU	228D	35.521	107.304	82.007	1.00	47.21	D
	ATOM	1173	OE2	GLU	228D	37.615	107.077	82.651	1.00	46.44	D
25	ATOM	1174	C	GLU	228D	33.962	107.643	78.155	1.00	43.29	D
	ATOM	1175	O	GLU	228D	33.015	106.955	77.758	1.00	42.72	D
	ATOM	1176	N	SER	229D	34.148	108.905	77.765	1.00	43.13	D
	ATOM	1177	CA	SER	229D	33.207	109.573	76.862	1.00	44.45	D
	ATOM	1178	CB	SER	229D	32.953	111.008	77.336	1.00	44.84	D
30	ATOM	1179	OG	SER	229D	32.179	111.004	78.525	1.00	49.54	D
	ATOM	1180	C	SER	229D	33.637	109.600	75.405	1.00	43.87	D
	ATOM	1181	O	SER	229D	33.788	110.665	74.805	1.00	45.29	D
	ATOM	1182	N	CYS	230D	33.816	108.422	74.832	1.00	42.76	D
	ATOM	1183	CA	CYS	230D	34.246	108.317	73.450	1.00	41.61	D
35	ATOM	1184	C	CYS	230D	33.682	107.002	72.931	1.00	41.02	D
	ATOM	1185	O	CYS	230D	33.777	105.969	73.601	1.00	38.36	D
	ATOM	1186	CB	CYS	230D	35.781	108.352	73.417	1.00	42.39	D
	ATOM	1187	SG	CYS	230D	36.648	108.024	71.844	1.00	45.00	D
	ATOM	1188	N	GLY	231D	33.048	107.054	71.764	1.00	40.31	D
40	ATOM	1189	CA	GLY	231D	32.482	105.846	71.187	1.00	42.36	D
	ATOM	1190	C	GLY	231D	33.592	105.011	70.577	1.00	42.45	D
	ATOM	1191	O	GLY	231D	33.582	104.738	69.378	1.00	44.11	D
	ATOM	1192	N	SER	232D	34.554	104.620	71.411	1.00	40.90	D
	ATOM	1193	CA	SER	232D	35.706	103.841	70.981	1.00	41.07	D
45	ATOM	1194	CB	SER	232D	36.991	104.500	71.483	1.00	40.51	D
	ATOM	1195	OG	SER	232D	37.022	104.520	72.898	1.00	40.68	D
	ATOM	1196	C	SER	232D	35.648	102.391	71.462	1.00	41.72	D
	ATOM	1197	O	SER	232D	36.671	101.719	71.569	1.00	43.25	D
	ATOM	1198	N	CYS	233D	34.446	101.915	71.755	1.00	42.19	D
50	ATOM	1199	CA	CYS	233D	34.257	100.539	72.194	1.00	40.50	D
	ATOM	1200	CB	CYS	233D	32.758	100.260	72.300	1.00	42.98	D
	ATOM	1201	SG	CYS	233D	31.790	101.219	71.100	1.00	41.32	D
	ATOM	1202	C	CYS	233D	34.918	99.578	71.191	1.00	39.65	D
	ATOM	1203	O	CYS	233D	35.665	98.682	71.583	1.00	37.33	D
55	ATOM	1204	N	TYR	234D	34.651	99.779	69.899	1.00	37.54	D
	ATOM	1205	CA	TYR	234D	35.222	98.925	68.854	1.00	35.94	D
	ATOM	1206	CB	TYR	234D	34.914	99.472	67.459	1.00	34.56	D
	ATOM	1207	CG	TYR	234D	35.582	100.798	67.175	1.00	35.07	D
	ATOM	1208	CD1	TYR	234D	35.019	101.996	67.623	1.00	33.43	D

	ATOM	1209	CE1	TYR	234D	35.641	103.220	67.385	1.00	34.92	D
	ATOM	1210	CD2	TYR	234D	36.789	100.856	66.481	1.00	32.02	D
	ATOM	1211	CE2	TYR	234D	37.422	102.075	66.239	1.00	34.50	D
	ATOM	1212	CZ	TYR	234D	36.841	103.254	66.692	1.00	34.27	D
5	ATOM	1213	OH	TYR	234D	37.451	104.460	66.449	1.00	32.28	D
	ATOM	1214	C	TYR	234D	36.730	98.828	68.995	1.00	35.98	D
	ATOM	1215	O	TYR	234D	37.339	97.817	68.645	1.00	36.04	D
	ATOM	1216	N	SER	235D	37.325	99.896	69.507	1.00	36.62	D
	ATOM	1217	CA	SER	235D	38.762	99.968	69.693	1.00	36.30	D
10	ATOM	1218	CB	SER	235D	39.164	101.410	69.984	1.00	38.72	D
	ATOM	1219	OG	SER	235D	40.570	101.542	69.990	1.00	44.86	D
	ATOM	1220	C	SER	235D	39.240	99.057	70.822	1.00	37.25	D
	ATOM	1221	O	SER	235D	40.227	98.339	70.665	1.00	38.20	D
	ATOM	1222	N	PHE	236D	38.552	99.081	71.962	1.00	36.37	D
15	ATOM	1223	CA	PHE	236D	38.954	98.239	73.081	1.00	34.77	D
	ATOM	1224	CB	PHE	236D	38.253	98.673	74.368	1.00	33.54	D
	ATOM	1225	CG	PHE	236D	38.692	100.015	74.853	1.00	34.69	D
	ATOM	1226	CD1	PHE	236D	38.139	101.174	74.322	1.00	32.82	D
	ATOM	1227	CD2	PHE	236D	39.712	100.126	75.792	1.00	34.50	D
20	ATOM	1228	CE1	PHE	236D	38.599	102.422	74.717	1.00	34.84	D
	ATOM	1229	CE2	PHE	236D	40.181	101.368	76.195	1.00	34.89	D
	ATOM	1230	CZ	PHE	236D	39.626	102.520	75.657	1.00	36.26	D
	ATOM	1231	C	PHE	236D	38.671	96.781	72.793	1.00	34.90	D
	ATOM	1232	O	PHE	236D	39.445	95.905	73.177	1.00	35.45	D
25	ATOM	1233	N	ALA	237D	37.562	96.522	72.111	1.00	34.54	D
	ATOM	1234	CA	ALA	237D	37.204	95.160	71.757	1.00	35.52	D
	ATOM	1235	CB	ALA	237D	35.832	95.131	71.069	1.00	34.83	D
	ATOM	1236	C	ALA	237D	38.284	94.594	70.828	1.00	34.13	D
	ATOM	1237	O	ALA	237D	38.739	93.467	71.016	1.00	35.56	D
30	ATOM	1238	N	SER	238D	38.698	95.390	69.844	1.00	33.20	D
	ATOM	1239	CA	SER	238D	39.728	94.978	68.886	1.00	33.60	D
	ATOM	1240	CB	SER	238D	39.937	96.059	67.817	1.00	30.65	D
	ATOM	1241	OG	SER	238D	38.876	96.088	66.885	1.00	31.67	D
	ATOM	1242	C	SER	238D	41.068	94.676	69.545	1.00	34.05	D
35	ATOM	1243	O	SER	238D	41.613	93.589	69.389	1.00	35.64	D
	ATOM	1244	N	LEU	239D	41.601	95.647	70.278	1.00	35.05	D
	ATOM	1245	CA	LEU	239D	42.880	95.472	70.945	1.00	35.33	D
	ATOM	1246	CB	LEU	239D	43.392	96.821	71.456	1.00	37.23	D
	ATOM	1247	CG	LEU	239D	43.470	97.928	70.397	1.00	38.11	D
40	ATOM	1248	CD1	LEU	239D	43.993	99.201	71.049	1.00	39.42	D
	ATOM	1249	CD2	LEU	239D	44.381	97.503	69.245	1.00	38.19	D
	ATOM	1250	C	LEU	239D	42.787	94.464	72.086	1.00	35.06	D
	ATOM	1251	O	LEU	239D	43.762	93.773	72.389	1.00	36.37	D
	ATOM	1252	N	GLY	240D	41.621	94.380	72.721	1.00	34.28	D
45	ATOM	1253	CA	GLY	240D	41.443	93.414	73.793	1.00	33.64	D
	ATOM	1254	C	GLY	240D	41.626	91.998	73.260	1.00	33.90	D
	ATOM	1255	O	GLY	240D	42.124	91.117	73.959	1.00	33.47	D
	ATOM	1256	N	MET	241D	41.225	91.773	72.013	1.00	33.16	D
	ATOM	1257	CA	MET	241D	41.369	90.455	71.404	1.00	33.25	D
50	ATOM	1258	CB	MET	241D	40.536	90.357	70.118	1.00	32.59	D
	ATOM	1259	CG	MET	241D	40.945	89.223	69.184	1.00	31.55	D
	ATOM	1260	SD	MET	241D	39.639	88.715	68.050	1.00	32.58	D
	ATOM	1261	CE	MET	241D	39.598	90.099	66.901	1.00	29.63	D
	ATOM	1262	C	MET	241D	42.837	90.181	71.101	1.00	32.66	D
55	ATOM	1263	O	MET	241D	43.371	89.130	71.469	1.00	32.42	D
	ATOM	1264	N	LEU	242D	43.485	91.137	70.437	1.00	33.83	D
	ATOM	1265	CA	LEU	242D	44.894	91.003	70.090	1.00	33.05	D
	ATOM	1266	CB	LEU	242D	45.381	92.249	69.342	1.00	31.47	D
	ATOM	1267	CG	LEU	242D	44.652	92.653	68.052	1.00	33.85	D

	ATOM	1268	CD1	LEU	242D	45.415	93.787	67.390	1.00	28.79	D
	ATOM	1269	CD2	LEU	242D	44.527	91.465	67.103	1.00	29.04	D
	ATOM	1270	C	LEU	242D	45.744	90.787	71.345	1.00	33.49	D
	ATOM	1271	O	LEU	242D	46.667	89.977	71.346	1.00	36.52	D
5	ATOM	1272	N	GLU	243D	45.424	91.508	72.414	1.00	33.68	D
	ATOM	1273	CA	GLU	243D	46.160	91.391	73.670	1.00	32.57	D
	ATOM	1274	CB	GLU	243D	45.633	92.422	74.687	1.00	33.66	D
	ATOM	1275	CG	GLU	243D	46.110	93.847	74.459	1.00	31.17	D
	ATOM	1276	CD	GLU	243D	45.213	94.881	75.131	1.00	31.74	D
10	ATOM	1277	OE1	GLU	243D	44.274	94.488	75.851	1.00	34.62	D
	ATOM	1278	OE2	GLU	243D	45.444	96.091	74.933	1.00	30.05	D
	ATOM	1279	C	GLU	243D	46.075	89.989	74.270	1.00	30.97	D
	ATOM	1280	O	GLU	243D	47.087	89.404	74.652	1.00	31.14	D
	ATOM	1281	N	ALA	244D	44.860	89.459	74.357	1.00	30.76	D
15	ATOM	1282	CA	ALA	244D	44.636	88.133	74.918	1.00	30.99	D
	ATOM	1283	CB	ALA	244D	43.142	87.897	75.124	1.00	29.53	D
	ATOM	1284	C	ALA	244D	45.218	87.040	74.036	1.00	32.41	D
	ATOM	1285	O	ALA	244D	45.861	86.113	74.528	1.00	32.44	D
	ATOM	1286	N	ARG	245D	44.993	87.144	72.731	1.00	33.23	D
20	ATOM	1287	CA	ARG	245D	45.504	86.135	71.819	1.00	34.32	D
	ATOM	1288	CB	ARG	245D	44.916	86.333	70.417	1.00	35.13	D
	ATOM	1289	CG	ARG	245D	43.442	85.991	70.398	1.00	32.94	D
	ATOM	1290	CD	ARG	245D	42.839	85.913	69.025	1.00	30.12	D
	ATOM	1291	NE	ARG	245D	41.543	85.253	69.112	1.00	31.14	D
25	ATOM	1292	CZ	ARG	245D	40.868	84.767	68.076	1.00	30.36	D
	ATOM	1293	NH1	ARG	245D	41.369	84.872	66.853	1.00	30.84	D
	ATOM	1294	NH2	ARG	245D	39.706	84.164	68.270	1.00	25.87	D
	ATOM	1295	C	ARG	245D	47.025	86.098	71.787	1.00	34.50	D
	ATOM	1296	O	ARG	245D	47.607	85.033	71.592	1.00	36.16	D
30	ATOM	1297	N	ILE	246D	47.667	87.252	71.986	1.00	35.58	D
	ATOM	1298	CA	ILE	246D	49.129	87.309	72.017	1.00	36.15	D
	ATOM	1299	CB	ILE	246D	49.662	88.767	72.016	1.00	35.74	D
	ATOM	1300	CG2	ILE	246D	51.114	88.788	72.465	1.00	36.50	D
	ATOM	1301	CG1	ILE	246D	49.547	89.373	70.613	1.00	34.53	D
35	ATOM	1302	CD	ILE	246D	49.984	90.819	70.511	1.00	29.62	D
	ATOM	1303	C	ILE	246D	49.626	86.607	73.283	1.00	36.79	D
	ATOM	1304	O	ILE	246D	50.645	85.919	73.262	1.00	40.05	D
	ATOM	1305	N	ARG	247D	48.901	86.770	74.384	1.00	36.03	D
	ATOM	1306	CA	ARG	247D	49.292	86.128	75.634	1.00	37.14	D
40	ATOM	1307	CB	ARG	247D	48.471	86.699	76.798	1.00	34.99	D
	ATOM	1308	CG	ARG	247D	48.781	88.168	77.041	1.00	38.47	D
	ATOM	1309	CD	ARG	247D	47.966	88.789	78.147	1.00	39.66	D
	ATOM	1310	NE	ARG	247D	48.016	87.974	79.359	1.00	44.64	D
	ATOM	1311	CZ	ARG	247D	47.835	88.444	80.593	1.00	45.25	D
45	ATOM	1312	NH1	ARG	247D	47.597	89.744	80.796	1.00	41.13	D
	ATOM	1313	NH2	ARG	247D	47.873	87.600	81.622	1.00	44.13	D
	ATOM	1314	C	ARG	247D	49.146	84.611	75.552	1.00	37.30	D
	ATOM	1315	O	ARG	247D	49.973	83.871	76.083	1.00	38.63	D
	ATOM	1316	N	ILE	248D	48.095	84.148	74.882	1.00	37.61	D
50	ATOM	1317	CA	ILE	248D	47.862	82.717	74.724	1.00	34.20	D
	ATOM	1318	CB	ILE	248D	46.491	82.463	74.064	1.00	34.87	D
	ATOM	1319	CG2	ILE	248D	46.374	81.005	73.593	1.00	30.39	D
	ATOM	1320	CG1	ILE	248D	45.378	82.820	75.050	1.00	33.54	D
	ATOM	1321	CD	ILE	248D	43.990	82.820	74.430	1.00	32.70	D
55	ATOM	1322	C	ILE	248D	48.974	82.122	73.855	1.00	34.13	D
	ATOM	1323	O	ILE	248D	49.575	81.108	74.198	1.00	34.59	D
	ATOM	1324	N	LEU	249D	49.247	82.765	72.730	1.00	33.48	D
	ATOM	1325	CA	LEU	249D	50.286	82.293	71.829	1.00	35.02	D
	ATOM	1326	CB	LEU	249D	50.403	83.229	70.625	1.00	32.81	D

	ATOM	1327	CG	LEU	249D	49.330	83.070	69.556	1.00	34.17	D
	ATOM	1328	CD1	LEU	249D	49.376	84.256	68.593	1.00	35.29	D
	ATOM	1329	CD2	LEU	249D	49.549	81.751	68.823	1.00	33.80	D
	ATOM	1330	C	LEU	249D	51.653	82.176	72.491	1.00	34.98	D
5	ATOM	1331	O	LEU	249D	52.448	81.326	72.114	1.00	33.73	D
	ATOM	1332	N	THR	250D	51.918	83.028	73.478	1.00	37.08	D
	ATOM	1333	CA	THR	250D	53.217	83.034	74.154	1.00	37.61	D
	ATOM	1334	CB	THR	250D	53.846	84.443	74.132	1.00	37.11	D
	ATOM	1335	OG1	THR	250D	53.022	85.345	74.884	1.00	36.65	D
10	ATOM	1336	CG2	THR	250D	53.978	84.952	72.704	1.00	36.33	D
	ATOM	1337	C	THR	250D	53.241	82.557	75.604	1.00	38.26	D
	ATOM	1338	O	THR	250D	54.180	82.873	76.331	1.00	39.23	D
	ATOM	1339	N	ASN	251D	52.239	81.797	76.027	1.00	38.20	D
	ATOM	1340	CA	ASN	251D	52.202	81.309	77.411	1.00	40.89	D
15	ATOM	1341	CB	ASN	251D	53.288	80.240	77.632	1.00	41.99	D
	ATOM	1342	CG	ASN	251D	53.108	79.477	78.945	1.00	41.17	D
	ATOM	1343	OD1	ASN	251D	52.004	79.030	79.260	1.00	42.48	D
	ATOM	1344	ND2	ASN	251D	54.194	79.308	79.699	1.00	39.33	D
	ATOM	1345	C	ASN	251D	52.408	82.458	78.408	1.00	41.52	D
20	ATOM	1346	O	ASN	251D	52.922	82.250	79.502	1.00	41.68	D
	ATOM	1347	N	ASN	252D	52.009	83.663	77.998	1.00	42.04	D
	ATOM	1348	CA	ASN	252D	52.110	84.880	78.798	1.00	43.76	D
	ATOM	1349	CB	ASN	252D	51.587	84.651	80.220	1.00	42.25	D
	ATOM	1350	CG	ASN	252D	50.076	84.702	80.300	1.00	43.43	D
25	ATOM	1351	OD1	ASN	252D	49.443	85.637	79.799	1.00	42.52	D
	ATOM	1352	ND2	ASN	252D	49.490	83.706	80.942	1.00	43.01	D
	ATOM	1353	C	ASN	252D	53.475	85.543	78.884	1.00	43.90	D
	ATOM	1354	O	ASN	252D	53.683	86.394	79.739	1.00	46.86	D
	ATOM	1355	N	SER	253D	54.403	85.174	78.012	1.00	43.67	D
30	ATOM	1356	CA	SER	253D	55.729	85.783	78.033	1.00	43.23	D
	ATOM	1357	CB	SER	253D	56.676	85.025	77.109	1.00	43.01	D
	ATOM	1358	OG	SER	253D	56.244	85.141	75.769	1.00	48.46	D
	ATOM	1359	C	SER	253D	55.567	87.199	77.515	1.00	42.75	D
	ATOM	1360	O	SER	253D	56.400	88.076	77.769	1.00	43.07	D
35	ATOM	1361	N	GLN	254D	54.501	87.403	76.753	1.00	41.24	D
	ATOM	1362	CA	GLN	254D	54.206	88.707	76.190	1.00	40.47	D
	ATOM	1363	CB	GLN	254D	54.279	88.657	74.659	1.00	39.86	D
	ATOM	1364	CG	GLN	254D	55.690	88.578	74.083	1.00	39.59	D
	ATOM	1365	CD	GLN	254D	55.713	88.595	72.545	1.00	40.96	D
40	ATOM	1366	OE1	GLN	254D	55.002	89.377	71.907	1.00	38.99	D
	ATOM	1367	NE2	GLN	254D	56.548	87.739	71.952	1.00	39.49	D
	ATOM	1368	C	GLN	254D	52.811	89.140	76.644	1.00	40.23	D
	ATOM	1369	O	GLN	254D	51.813	88.492	76.327	1.00	36.25	D
	ATOM	1370	N	THR	255D	52.765	90.233	77.400	1.00	40.44	D
45	ATOM	1371	CA	THR	255D	51.518	90.789	77.911	1.00	39.61	D
	ATOM	1372	CB	THR	255D	51.439	90.648	79.438	1.00	38.79	D
	ATOM	1373	OG1	THR	255D	52.575	91.291	80.032	1.00	41.88	D
	ATOM	1374	CG2	THR	255D	51.443	89.189	79.832	1.00	38.07	D
	ATOM	1375	C	THR	255D	51.432	92.268	77.545	1.00	39.15	D
50	ATOM	1376	O	THR	255D	51.257	93.131	78.409	1.00	39.23	D
	ATOM	1377	N	PRO	256D	51.557	92.583	76.248	1.00	39.56	D
	ATOM	1378	CD	PRO	256D	51.610	91.708	75.063	1.00	39.44	D
	ATOM	1379	CA	PRO	256D	51.483	93.986	75.844	1.00	39.37	D
	ATOM	1380	CB	PRO	256D	51.867	93.931	74.369	1.00	39.42	D
55	ATOM	1381	CG	PRO	256D	51.218	92.662	73.935	1.00	39.85	D
	ATOM	1382	C	PRO	256D	50.084	94.561	76.046	1.00	38.85	D
	ATOM	1383	O	PRO	256D	49.086	93.833	76.034	1.00	36.74	D
	ATOM	1384	N	ILE	257D	50.034	95.873	76.252	1.00	37.73	D
	ATOM	1385	CA	ILE	257D	48.789	96.608	76.418	1.00	35.82	D

200

	ATOM	1386	CB	ILE	257D	48.786	97.405	77.751	1.00	35.81	D
	ATOM	1387	CG2	ILE	257D	47.560	98.301	77.832	1.00	33.85	D
	ATOM	1388	CG1	ILE	257D	48.822	96.439	78.935	1.00	31.78	D
	ATOM	1389	CD	ILE	257D	47.607	95.539	79.039	1.00	32.99	D
5	ATOM	1390	C	ILE	257D	48.843	97.547	75.221	1.00	35.79	D
	ATOM	1391	O	ILE	257D	49.765	98.358	75.110	1.00	38.00	D
	ATOM	1392	N	LEU	258D	47.878	97.421	74.314	1.00	36.82	D
	ATOM	1393	CA	LEU	258D	47.874	98.231	73.095	1.00	38.72	D
	ATOM	1394	CB	LEU	258D	47.294	97.402	71.938	1.00	37.33	D
10	ATOM	1395	CG	LEU	258D	47.970	96.028	71.769	1.00	39.49	D
	ATOM	1396	CD1	LEU	258D	47.360	95.274	70.589	1.00	37.05	D
	ATOM	1397	CD2	LEU	258D	49.469	96.203	71.567	1.00	35.75	D
	ATOM	1398	C	LEU	258D	47.167	99.584	73.212	1.00	38.49	D
	ATOM	1399	O	LEU	258D	46.426	99.825	74.162	1.00	39.93	D
15	ATOM	1400	N	SER	259D	47.402	100.459	72.235	1.00	37.65	D
	ATOM	1401	CA	SER	259D	46.846	101.804	72.250	1.00	37.40	D
	ATOM	1402	CB	SER	259D	47.906	102.798	71.773	1.00	38.21	D
	ATOM	1403	OG	SER	259D	47.302	104.009	71.332	1.00	39.72	D
	ATOM	1404	C	SER	259D	45.559	102.097	71.498	1.00	38.11	D
20	ATOM	1405	O	SER	259D	45.560	102.225	70.268	1.00	38.13	D
	ATOM	1406	N	PRO	260D	44.436	102.223	72.231	1.00	37.88	D
	ATOM	1407	CD	PRO	260D	44.229	101.908	73.654	1.00	37.21	D
	ATOM	1408	CA	PRO	260D	43.160	102.520	71.575	1.00	37.33	D
	ATOM	1409	CB	PRO	260D	42.138	102.335	72.693	1.00	36.12	D
25	ATOM	1410	CG	PRO	260D	42.934	102.611	73.933	1.00	39.26	D
	ATOM	1411	C	PRO	260D	43.164	103.939	71.022	1.00	36.98	D
	ATOM	1412	O	PRO	260D	42.473	104.234	70.048	1.00	36.95	D
	ATOM	1413	N	GLN	261D	43.962	104.810	71.636	1.00	37.04	D
	ATOM	1414	CA	GLN	261D	44.043	106.200	71.204	1.00	36.28	D
30	ATOM	1415	CB	GLN	261D	44.868	107.022	72.199	1.00	37.22	D
	ATOM	1416	CG	GLN	261D	44.822	108.523	71.946	1.00	35.67	D
	ATOM	1417	CD	GLN	261D	43.404	109.076	72.029	1.00	38.33	D
	ATOM	1418	OE1	GLN	261D	42.733	108.933	73.052	1.00	37.23	D
	ATOM	1419	NE2	GLN	261D	42.942	109.705	70.948	1.00	36.15	D
35	ATOM	1420	C	GLN	261D	44.658	106.309	69.812	1.00	38.10	D
	ATOM	1421	O	GLN	261D	44.247	107.149	69.006	1.00	39.34	D
	ATOM	1422	N	GLU	262D	45.650	105.465	69.537	1.00	38.49	D
	ATOM	1423	CA	GLU	262D	46.317	105.457	68.241	1.00	37.34	D
	ATOM	1424	CB	GLU	262D	47.463	104.436	68.266	1.00	39.14	D
40	ATOM	1425	CG	GLU	262D	48.373	104.406	67.032	1.00	40.48	D
	ATOM	1426	CD	GLU	262D	47.730	103.754	65.810	1.00	39.27	D
	ATOM	1427	OE1	GLU	262D	46.963	102.780	65.967	1.00	40.06	D
	ATOM	1428	OE2	GLU	262D	48.010	104.207	64.687	1.00	41.49	D
	ATOM	1429	C	GLU	262D	45.274	105.109	67.176	1.00	36.93	D
45	ATOM	1430	O	GLU	262D	45.272	105.679	66.084	1.00	38.01	D
	ATOM	1431	N	VAL	263D	44.368	104.198	67.516	1.00	36.20	D
	ATOM	1432	CA	VAL	263D	43.299	103.781	66.599	1.00	36.69	D
	ATOM	1433	CB	VAL	263D	42.551	102.525	67.136	1.00	33.82	D
	ATOM	1434	CG1	VAL	263D	41.362	102.207	66.265	1.00	32.74	D
50	ATOM	1435	CG2	VAL	263D	43.493	101.344	67.182	1.00	31.82	D
	ATOM	1436	C	VAL	263D	42.285	104.907	66.401	1.00	37.84	D
	ATOM	1437	O	VAL	263D	41.861	105.191	65.275	1.00	40.14	D
	ATOM	1438	N	VAL	264D	41.901	105.547	67.502	1.00	38.18	D
	ATOM	1439	CA	VAL	264D	40.941	106.641	67.462	1.00	36.98	D
55	ATOM	1440	CB	VAL	264D	40.581	107.105	68.897	1.00	36.34	D
	ATOM	1441	CG1	VAL	264D	39.866	108.453	68.861	1.00	35.48	D
	ATOM	1442	CG2	VAL	264D	39.687	106.062	69.561	1.00	34.31	D
	ATOM	1443	C	VAL	264D	41.455	107.834	66.664	1.00	37.72	D
	ATOM	1444	O	VAL	264D	40.743	108.384	65.827	1.00	38.02	D

201

	ATOM	1445	N	SER	265D	42.701	108.218	66.908	1.00	38.76	D
	ATOM	1446	CA	SER	265D	43.282	109.373	66.234	1.00	41.55	D
	ATOM	1447	CB	SER	265D	44.343	110.021	67.132	1.00	41.67	D
	ATOM	1448	OG	SER	265D	43.801	110.408	68.388	1.00	44.06	D
5	ATOM	1449	C	SER	265D	43.902	109.130	64.861	1.00	43.21	D
	ATOM	1450	O	SER	265D	43.876	110.013	64.007	1.00	44.21	D
	ATOM	1451	N	CYS	266D	44.449	107.941	64.633	1.00	44.13	D
	ATOM	1452	CA	CYS	266D	45.125	107.676	63.369	1.00	44.73	D
	ATOM	1453	C	CYS	266D	44.482	106.774	62.319	1.00	44.19	D
10	ATOM	1454	O	CYS	266D	44.790	106.903	61.129	1.00	44.18	D
	ATOM	1455	CB	CYS	266D	46.508	107.126	63.667	1.00	46.49	D
	ATOM	1456	SG	CYS	266D	47.459	108.086	64.886	1.00	51.76	D
	ATOM	1457	N	SER	267D	43.614	105.856	62.730	1.00	41.96	D
	ATOM	1458	CA	SER	267D	43.021	104.952	61.753	1.00	40.12	D
15	ATOM	1459	CB	SER	267D	42.399	103.748	62.445	1.00	39.92	D
	ATOM	1460	OG	SER	267D	41.873	102.865	61.474	1.00	40.81	D
	ATOM	1461	C	SER	267D	41.991	105.549	60.804	1.00	38.99	D
	ATOM	1462	O	SER	267D	41.033	106.187	61.229	1.00	39.65	D
	ATOM	1463	N	PRO	268D	42.186	105.346	59.490	1.00	38.44	D
20	ATOM	1464	CD	PRO	268D	43.460	104.898	58.904	1.00	37.65	D
	ATOM	1465	CA	PRO	268D	41.286	105.842	58.442	1.00	35.89	D
	ATOM	1466	CB	PRO	268D	42.176	105.896	57.201	1.00	36.08	D
	ATOM	1467	CG	PRO	268D	43.575	105.811	57.725	1.00	37.44	D
	ATOM	1468	C	PRO	268D	40.133	104.860	58.233	1.00	35.37	D
25	ATOM	1469	O	PRO	268D	39.171	105.155	57.525	1.00	36.17	D
	ATOM	1470	N	TYR	269D	40.251	103.688	58.850	1.00	35.01	D
	ATOM	1471	CA	TYR	269D	39.247	102.633	58.724	1.00	35.51	D
	ATOM	1472	CB	TYR	269D	39.931	101.256	58.804	1.00	34.09	D
	ATOM	1473	CG	TYR	269D	40.967	101.003	57.722	1.00	31.19	D
30	ATOM	1474	CD1	TYR	269D	41.968	100.042	57.900	1.00	33.14	D
	ATOM	1475	CE1	TYR	269D	42.917	99.793	56.907	1.00	30.62	D
	ATOM	1476	CD2	TYR	269D	40.942	101.713	56.516	1.00	33.10	D
	ATOM	1477	CE2	TYR	269D	41.882	101.476	55.517	1.00	31.98	D
	ATOM	1478	CZ	TYR	269D	42.867	100.515	55.719	1.00	35.23	D
35	ATOM	1479	OH	TYR	269D	43.806	100.293	54.740	1.00	35.61	D
	ATOM	1480	C	TYR	269D	38.143	102.733	59.777	1.00	37.76	D
	ATOM	1481	O	TYR	269D	37.217	101.926	59.792	1.00	36.54	D
	ATOM	1482	N	ALA	270D	38.246	103.727	60.655	1.00	39.38	D
	ATOM	1483	CA	ALA	270D	37.244	103.939	61.694	1.00	41.06	D
40	ATOM	1484	CB	ALA	270D	37.762	103.429	63.044	1.00	36.90	D
	ATOM	1485	C	ALA	270D	36.918	105.435	61.769	1.00	42.23	D
	ATOM	1486	O	ALA	270D	37.562	106.248	61.103	1.00	42.39	D
	ATOM	1487	N	GLN	271D	35.917	105.796	62.568	1.00	42.82	D
	ATOM	1488	CA	GLN	271D	35.530	107.202	62.709	1.00	42.42	D
45	ATOM	1489	CB	GLN	271D	34.029	107.373	62.443	1.00	41.11	D
	ATOM	1490	CG	GLN	271D	33.610	107.192	60.992	1.00	41.38	D
	ATOM	1491	CD	GLN	271D	33.817	105.776	60.485	1.00	43.54	D
	ATOM	1492	OE1	GLN	271D	33.323	104.816	61.073	1.00	43.51	D
	ATOM	1493	NE2	GLN	271D	34.546	105.641	59.378	1.00	45.29	D
50	ATOM	1494	C	GLN	271D	35.861	107.793	64.079	1.00	41.04	D
	ATOM	1495	O	GLN	271D	35.021	108.446	64.676	1.00	42.09	D
	ATOM	1496	N	GLY	272D	37.076	107.563	64.568	1.00	41.01	D
	ATOM	1497	CA	GLY	272D	37.480	108.100	65.859	1.00	41.41	D
	ATOM	1498	C	GLY	272D	36.523	107.794	67.002	1.00	42.42	D
55	ATOM	1499	O	GLY	272D	36.160	106.644	67.213	1.00	44.08	D
	ATOM	1500	N	CYS	273D	36.116	108.819	67.749	1.00	42.70	D
	ATOM	1501	CA	CYS	273D	35.193	108.623	68.869	1.00	42.29	D
	ATOM	1502	C	CYS	273D	33.773	108.449	68.376	1.00	40.99	D
	ATOM	1503	O	CYS	273D	32.845	108.251	69.163	1.00	38.45	D

202

	ATOM	1504	CB	CYS	273D	35.242	109.805	69.844	1.00	42.74	D
	ATOM	1505	SG	CYS	273D	36.730	109.813	70.891	1.00	44.12	D
	ATOM	1506	N	ASP	274D	33.606	108.497	67.063	1.00	39.75	D
	ATOM	1507	CA	ASP	274D	32.290	108.347	66.496	1.00	40.44	D
5	ATOM	1508	CB	ASP	274D	32.098	109.389	65.397	1.00	45.10	D
	ATOM	1509	CG	ASP	274D	31.816	110.766	65.965	1.00	47.73	D
	ATOM	1510	OD1	ASP	274D	30.734	110.930	66.567	1.00	49.54	D
	ATOM	1511	OD2	ASP	274D	32.672	111.672	65.834	1.00	50.45	D
	ATOM	1512	C	ASP	274D	31.964	106.945	66.001	1.00	40.95	D
10	ATOM	1513	O	ASP	274D	31.084	106.761	65.155	1.00	39.38	D
	ATOM	1514	N	GLY	275D	32.673	105.952	66.535	1.00	40.80	D
	ATOM	1515	CA	GLY	275D	32.393	104.579	66.155	1.00	42.71	D
	ATOM	1516	C	GLY	275D	33.334	103.873	65.194	1.00	43.28	D
	ATOM	1517	O	GLY	275D	34.151	104.491	64.498	1.00	43.35	D
15	ATOM	1518	N	GLY	276D	33.198	102.551	65.161	1.00	42.77	D
	ATOM	1519	CA	GLY	276D	34.024	101.724	64.303	1.00	40.83	D
	ATOM	1520	C	GLY	276D	33.678	100.251	64.429	1.00	40.58	D
	ATOM	1521	O	GLY	276D	32.772	99.854	65.186	1.00	37.62	D
	ATOM	1522	N	PHE	277D	34.419	99.428	63.693	1.00	39.12	D
20	ATOM	1523	CA	PHE	277D	34.175	97.993	63.700	1.00	37.84	D
	ATOM	1524	CB	PHE	277D	33.348	97.626	62.468	1.00	34.99	D
	ATOM	1525	CG	PHE	277D	31.989	98.257	62.470	1.00	37.51	D
	ATOM	1526	CD1	PHE	277D	30.915	97.634	63.110	1.00	37.58	D
	ATOM	1527	CD2	PHE	277D	31.797	99.529	61.922	1.00	37.52	D
25	ATOM	1528	CE1	PHE	277D	29.674	98.273	63.207	1.00	37.51	D
	ATOM	1529	CE2	PHE	277D	30.566	100.173	62.016	1.00	34.66	D
	ATOM	1530	CZ	PHE	277D	29.506	99.547	62.658	1.00	37.24	D
	ATOM	1531	C	PHE	277D	35.443	97.148	63.772	1.00	36.81	D
	ATOM	1532	O	PHE	277D	36.401	97.362	63.027	1.00	35.89	D
30	ATOM	1533	N	PRO	278D	35.455	96.174	64.689	1.00	34.80	D
	ATOM	1534	CD	PRO	278D	34.378	95.886	65.652	1.00	32.65	D
	ATOM	1535	CA	PRO	278D	36.587	95.269	64.889	1.00	33.98	D
	ATOM	1536	CB	PRO	278D	35.987	94.178	65.762	1.00	32.52	D
	ATOM	1537	CG	PRO	278D	35.064	94.973	66.644	1.00	34.07	D
35	ATOM	1538	C	PRO	278D	37.185	94.723	63.589	1.00	33.61	D
	ATOM	1539	O	PRO	278D	38.405	94.743	63.412	1.00	34.87	D
	ATOM	1540	N	TYR	279D	36.338	94.252	62.679	1.00	32.40	D
	ATOM	1541	CA	TYR	279D	36.834	93.698	61.422	1.00	33.33	D
	ATOM	1542	CB	TYR	279D	35.688	93.429	60.444	1.00	31.83	D
40	ATOM	1543	CG	TYR	279D	36.129	92.746	59.162	1.00	29.53	D
	ATOM	1544	CD1	TYR	279D	36.081	91.361	59.041	1.00	30.23	D
	ATOM	1545	CE1	TYR	279D	36.459	90.723	57.856	1.00	29.19	D
	ATOM	1546	CD2	TYR	279D	36.575	93.484	58.064	1.00	28.64	D
	ATOM	1547	CE2	TYR	279D	36.955	92.855	56.871	1.00	28.57	D
45	ATOM	1548	CZ	TYR	279D	36.890	91.473	56.779	1.00	31.12	D
	ATOM	1549	OH	TYR	279D	37.240	90.829	55.617	1.00	32.16	D
	ATOM	1550	C	TYR	279D	37.837	94.631	60.753	1.00	33.38	D
	ATOM	1551	O	TYR	279D	38.833	94.178	60.191	1.00	32.71	D
	ATOM	1552	N	LEU	280D	37.563	95.931	60.808	1.00	33.56	D
50	ATOM	1553	CA	LEU	280D	38.441	96.921	60.196	1.00	32.72	D
	ATOM	1554	CB	LEU	280D	37.625	98.134	59.737	1.00	30.95	D
	ATOM	1555	CG	LEU	280D	36.739	97.887	58.510	1.00	33.52	D
	ATOM	1556	CD1	LEU	280D	35.742	99.022	58.351	1.00	30.68	D
	ATOM	1557	CD2	LEU	280D	37.599	97.737	57.264	1.00	27.93	D
55	ATOM	1558	C	LEU	280D	39.579	97.381	61.094	1.00	32.93	D
	ATOM	1559	O	LEU	280D	40.531	97.989	60.618	1.00	36.67	D
	ATOM	1560	N	ILE	281D	39.499	97.101	62.388	1.00	33.23	D
	ATOM	1561	CA	ILE	281D	40.568	97.520	63.279	1.00	33.80	D
	ATOM	1562	CB	ILE	281D	40.020	98.275	64.508	1.00	33.20	D

203

	ATOM	1563	CG2	ILE	281D	41.145	98.576	65.490	1.00	30.45	D
	ATOM	1564	CG1	ILE	281D	39.370	99.584	64.044	1.00	33.58	D
	ATOM	1565	CD	ILE	281D	40.288	100.460	63.177	1.00	31.12	D
	ATOM	1566	C	ILE	281D	41.440	96.356	63.724	1.00	35.77	D
5	ATOM	1567	O	ILE	281D	42.635	96.327	63.422	1.00	37.82	D
	ATOM	1568	N	ALA	282D	40.856	95.402	64.441	1.00	35.65	D
	ATOM	1569	CA	ALA	282D	41.608	94.232	64.890	1.00	34.08	D
	ATOM	1570	CB	ALA	282D	40.726	93.337	65.744	1.00	31.21	D
	ATOM	1571	C	ALA	282D	42.088	93.468	63.655	1.00	32.63	D
10	ATOM	1572	O	ALA	282D	43.108	92.799	63.687	1.00	29.37	D
	ATOM	1573	N	GLY	283D	41.334	93.590	62.567	1.00	32.26	D
	ATOM	1574	CA	GLY	283D	41.684	92.910	61.339	1.00	31.03	D
	ATOM	1575	C	GLY	283D	42.463	93.761	60.362	1.00	32.97	D
	ATOM	1576	O	GLY	283D	43.687	93.836	60.448	1.00	35.49	D
15	ATOM	1577	N	LYS	284D	41.749	94.428	59.456	1.00	33.10	D
	ATOM	1578	CA	LYS	284D	42.362	95.249	58.414	1.00	33.40	D
	ATOM	1579	CB	LYS	284D	41.286	95.916	57.559	1.00	33.97	D
	ATOM	1580	CG	LYS	284D	41.831	96.429	56.247	1.00	34.36	D
	ATOM	1581	CD	LYS	284D	40.728	96.862	55.303	1.00	34.63	D
20	ATOM	1582	CE	LYS	284D	41.315	97.150	53.944	1.00	33.62	D
	ATOM	1583	NZ	LYS	284D	42.049	95.952	53.456	1.00	30.96	D
	ATOM	1584	C	LYS	284D	43.369	96.303	58.844	1.00	35.20	D
	ATOM	1585	O	LYS	284D	44.457	96.390	58.272	1.00	35.09	D
	ATOM	1586	N	TYR	285D	43.023	97.115	59.834	1.00	36.42	D
25	ATOM	1587	CA	TYR	285D	43.958	98.141	60.273	1.00	34.23	D
	ATOM	1588	CB	TYR	285D	43.304	99.096	61.271	1.00	36.53	D
	ATOM	1589	CG	TYR	285D	44.204	100.260	61.615	1.00	35.00	D
	ATOM	1590	CD1	TYR	285D	44.904	100.299	62.816	1.00	34.50	D
	ATOM	1591	CE1	TYR	285D	45.786	101.340	63.101	1.00	34.12	D
30	ATOM	1592	CD2	TYR	285D	44.402	101.291	60.706	1.00	35.00	D
	ATOM	1593	CE2	TYR	285D	45.281	102.336	60.982	1.00	36.73	D
	ATOM	1594	CZ	TYR	285D	45.969	102.353	62.179	1.00	35.02	D
	ATOM	1595	OH	TYR	285D	46.839	103.384	62.444	1.00	37.66	D
	ATOM	1596	C	TYR	285D	45.210	97.534	60.889	1.00	32.05	D
35	ATOM	1597	O	TYR	285D	46.318	97.996	60.632	1.00	32.50	D
	ATOM	1598	N	ALA	286D	45.039	96.500	61.701	1.00	30.67	D
	ATOM	1599	CA	ALA	286D	46.182	95.853	62.324	1.00	30.25	D
	ATOM	1600	CB	ALA	286D	45.715	94.810	63.333	1.00	30.48	D
	ATOM	1601	C	ALA	286D	47.075	95.207	61.262	1.00	30.08	D
40	ATOM	1602	O	ALA	286D	48.291	95.239	61.370	1.00	31.60	D
	ATOM	1603	N	GLN	287D	46.472	94.638	60.224	1.00	29.96	D
	ATOM	1604	CA	GLN	287D	47.249	94.005	59.173	1.00	30.93	D
	ATOM	1605	CB	GLN	287D	46.356	93.145	58.269	1.00	31.52	D
	ATOM	1606	CG	GLN	287D	47.142	92.398	57.173	1.00	28.69	D
45	ATOM	1607	CD	GLN	287D	46.318	91.341	56.448	1.00	27.66	D
	ATOM	1608	OE1	GLN	287D	45.600	91.631	55.499	1.00	29.41	D
	ATOM	1609	NE2	GLN	287D	46.420	90.108	56.905	1.00	25.90	D
	ATOM	1610	C	GLN	287D	48.010	94.995	58.302	1.00	32.88	D
	ATOM	1611	O	GLN	287D	49.192	94.800	58.021	1.00	33.05	D
50	ATOM	1612	N	ASP	288D	47.330	96.055	57.877	1.00	34.78	D
	ATOM	1613	CA	ASP	288D	47.932	97.052	56.998	1.00	35.27	D
	ATOM	1614	CB	ASP	288D	46.842	97.864	56.285	1.00	35.40	D
	ATOM	1615	CG	ASP	288D	45.934	97.007	55.426	1.00	36.07	D
	ATOM	1616	OD1	ASP	288D	46.188	95.787	55.293	1.00	34.22	D
55	ATOM	1617	OD2	ASP	288D	44.958	97.566	54.878	1.00	38.37	D
	ATOM	1618	C	ASP	288D	48.899	98.023	57.661	1.00	36.84	D
	ATOM	1619	O	ASP	288D	50.033	98.188	57.199	1.00	38.18	D
	ATOM	1620	N	PHE	289D	48.459	98.669	58.736	1.00	35.88	D
	ATOM	1621	CA	PHE	289D	49.308	99.640	59.405	1.00	35.38	D

204

	ATOM	1622	CB	PHE	289D	48.558	100.963	59.532	1.00	36.47	D
	ATOM	1623	CG	PHE	289D	48.138	101.526	58.214	1.00	34.50	D
	ATOM	1624	CD1	PHE	289D	46.827	101.408	57.785	1.00	30.47	D
	ATOM	1625	CD2	PHE	289D	49.085	102.103	57.363	1.00	32.79	D
5	ATOM	1626	CE1	PHE	289D	46.461	101.851	56.526	1.00	32.45	D
	ATOM	1627	CE2	PHE	289D	48.731	102.547	56.102	1.00	30.88	D
	ATOM	1628	CZ	PHE	289D	47.417	102.421	55.678	1.00	32.10	D
	ATOM	1629	C	PHE	289D	49.832	99.206	60.755	1.00	36.83	D
	ATOM	1630	O	PHE	289D	50.836	99.738	61.234	1.00	36.79	D
10	ATOM	1631	N	GLY	290D	49.155	98.239	61.366	1.00	36.35	D
	ATOM	1632	CA	GLY	290D	49.590	97.756	62.660	1.00	35.38	D
	ATOM	1633	C	GLY	290D	49.177	98.670	63.793	1.00	35.17	D
	ATOM	1634	O	GLY	290D	48.831	99.830	63.584	1.00	33.61	D
	ATOM	1635	N	VAL	291D	49.205	98.136	65.004	1.00	34.90	D
15	ATOM	1636	CA	VAL	291D	48.836	98.907	66.179	1.00	35.89	D
	ATOM	1637	CB	VAL	291D	47.619	98.263	66.913	1.00	33.89	D
	ATOM	1638	CG1	VAL	291D	46.396	98.311	66.012	1.00	32.52	D
	ATOM	1639	CG2	VAL	291D	47.929	96.836	67.307	1.00	28.67	D
	ATOM	1640	C	VAL	291D	50.041	99.009	67.115	1.00	36.94	D
20	ATOM	1641	O	VAL	291D	50.941	98.170	67.076	1.00	38.13	D
	ATOM	1642	N	VAL	292D	50.058	100.040	67.949	1.00	38.19	D
	ATOM	1643	CA	VAL	292D	51.174	100.263	68.863	1.00	40.35	D
	ATOM	1644	CB	VAL	292D	51.734	101.680	68.668	1.00	38.97	D
	ATOM	1645	CG1	VAL	292D	52.098	101.903	67.198	1.00	39.22	D
25	ATOM	1646	CG2	VAL	292D	50.703	102.691	69.091	1.00	39.42	D
	ATOM	1647	C	VAL	292D	50.773	100.087	70.325	1.00	40.36	D
	ATOM	1648	O	VAL	292D	49.591	99.995	70.651	1.00	41.44	D
	ATOM	1649	N	GLU	293D	51.763	100.043	71.204	1.00	41.38	D
	ATOM	1650	CA	GLU	293D	51.499	99.891	72.631	1.00	43.50	D
30	ATOM	1651	CB	GLU	293D	52.788	99.500	73.358	1.00	43.25	D
	ATOM	1652	CG	GLU	293D	53.200	98.075	73.061	1.00	47.94	D
	ATOM	1653	CD	GLU	293D	54.533	97.675	73.675	1.00	49.86	D
	ATOM	1654	OE1	GLU	293D	54.763	97.965	74.870	1.00	51.82	D
	ATOM	1655	OE2	GLU	293D	55.346	97.044	72.960	1.00	52.30	D
35	ATOM	1656	C	GLU	293D	50.918	101.163	73.242	1.00	43.66	D
	ATOM	1657	O	GLU	293D	51.035	102.254	72.672	1.00	41.20	D
	ATOM	1658	N	GLU	294D	50.282	101.007	74.401	1.00	44.62	D
	ATOM	1659	CA	GLU	294D	49.673	102.128	75.117	1.00	45.81	D
	ATOM	1660	CB	GLU	294D	49.129	101.650	76.469	1.00	47.40	D
40	ATOM	1661	CG	GLU	294D	48.502	102.744	77.353	1.00	46.42	D
	ATOM	1662	CD	GLU	294D	47.251	103.376	76.747	1.00	47.46	D
	ATOM	1663	OE1	GLU	294D	46.623	102.761	75.847	1.00	47.71	D
	ATOM	1664	OE2	GLU	294D	46.885	104.489	77.187	1.00	46.54	D
	ATOM	1665	C	GLU	294D	50.654	103.282	75.349	1.00	45.85	D
45	ATOM	1666	O	GLU	294D	50.364	104.423	74.985	1.00	46.09	D
	ATOM	1667	N	ASN	295D	51.803	102.987	75.958	1.00	45.92	D
	ATOM	1668	CA	ASN	295D	52.809	104.018	76.233	1.00	48.50	D
	ATOM	1669	CB	ASN	295D	54.125	103.401	76.721	1.00	52.82	D
	ATOM	1670	CG	ASN	295D	55.232	104.458	76.906	1.00	56.31	D
50	ATOM	1671	OD1	ASN	295D	55.346	105.084	77.970	1.00	58.48	D
	ATOM	1672	ND2	ASN	295D	56.033	104.671	75.859	1.00	57.52	D
	ATOM	1673	C	ASN	295D	53.125	104.890	75.022	1.00	47.81	D
	ATOM	1674	O	ASN	295D	53.562	106.027	75.170	1.00	48.35	D
	ATOM	1675	N	CYS	296D	52.913	104.359	73.824	1.00	47.38	D
55	ATOM	1676	CA	CYS	296D	53.200	105.112	72.613	1.00	45.93	D
	ATOM	1677	C	CYS	296D	52.183	106.215	72.356	1.00	44.41	D
	ATOM	1678	O	CYS	296D	52.501	107.237	71.743	1.00	45.06	D
	ATOM	1679	CB	CYS	296D	53.223	104.180	71.414	1.00	47.03	D
	ATOM	1680	SG	CYS	296D	53.718	105.004	69.870	1.00	49.47	D

205

	ATOM	1681	N	PHE	297D	50.953	106.003	72.802	1.00	42.89	D
	ATOM	1682	CA	PHE	297D	49.913	106.998	72.596	1.00	43.21	D
	ATOM	1683	CB	PHE	297D	49.348	106.870	71.173	1.00	42.48	D
	ATOM	1684	CG	PHE	297D	48.647	108.113	70.662	1.00	44.17	D
5	ATOM	1685	CD1	PHE	297D	48.366	108.250	69.298	1.00	41.93	D
	ATOM	1686	CD2	PHE	297D	48.245	109.131	71.533	1.00	44.10	D
	ATOM	1687	CE1	PHE	297D	47.694	109.376	68.808	1.00	43.72	D
	ATOM	1688	CE2	PHE	297D	47.570	110.271	71.051	1.00	42.88	D
	ATOM	1689	CZ	PHE	297D	47.293	110.395	69.692	1.00	43.34	D
10	ATOM	1690	C	PHE	297D	48.836	106.769	73.646	1.00	43.23	D
	ATOM	1691	O	PHE	297D	47.809	106.136	73.379	1.00	42.82	D
	ATOM	1692	N	PRO	298D	49.076	107.270	74.874	1.00	43.64	D
	ATOM	1693	CD	PRO	298D	50.318	107.968	75.265	1.00	42.49	D
	ATOM	1694	CA	PRO	298D	48.160	107.155	76.019	1.00	42.18	D
15	ATOM	1695	CB	PRO	298D	48.809	108.062	77.064	1.00	42.07	D
	ATOM	1696	CG	PRO	298D	50.277	107.870	76.781	1.00	43.28	D
	ATOM	1697	C	PRO	298D	46.743	107.593	75.659	1.00	41.96	D
	ATOM	1698	O	PRO	298D	46.554	108.527	74.878	1.00	42.45	D
	ATOM	1699	N	TYR	299D	45.751	106.924	76.239	1.00	41.48	D
20	ATOM	1700	CA	TYR	299D	44.348	107.223	75.955	1.00	40.56	D
	ATOM	1701	CB	TYR	299D	43.487	106.027	76.367	1.00	38.60	D
	ATOM	1702	CG	TYR	299D	42.042	106.106	75.933	1.00	36.11	D
	ATOM	1703	CD1	TYR	299D	41.703	106.242	74.583	1.00	35.97	D
	ATOM	1704	CE1	TYR	299D	40.360	106.283	74.172	1.00	36.07	D
25	ATOM	1705	CD2	TYR	299D	41.008	106.011	76.866	1.00	34.09	D
	ATOM	1706	CE2	TYR	299D	39.669	106.044	76.470	1.00	36.07	D
	ATOM	1707	CZ	TYR	299D	39.353	106.183	75.120	1.00	35.60	D
	ATOM	1708	OH	TYR	299D	38.038	106.238	74.728	1.00	35.47	D
	ATOM	1709	C	TYR	299D	43.826	108.496	76.635	1.00	41.47	D
30	ATOM	1710	O	TYR	299D	44.054	108.713	77.828	1.00	41.13	D
	ATOM	1711	N	THR	300D	43.122	109.323	75.865	1.00	41.13	D
	ATOM	1712	CA	THR	300D	42.551	110.571	76.374	1.00	42.19	D
	ATOM	1713	CB	THR	300D	43.237	111.806	75.748	1.00	43.22	D
	ATOM	1714	OG1	THR	300D	43.045	111.793	74.328	1.00	42.85	D
35	ATOM	1715	CG2	THR	300D	44.740	111.811	76.062	1.00	41.81	D
	ATOM	1716	C	THR	300D	41.048	110.670	76.089	1.00	43.59	D
	ATOM	1717	O	THR	300D	40.407	111.674	76.419	1.00	43.93	D
	ATOM	1718	N	ALA	301D	40.481	109.632	75.475	1.00	42.47	D
	ATOM	1719	CA	ALA	301D	39.055	109.631	75.166	1.00	41.74	D
40	ATOM	1720	CB	ALA	301D	38.243	109.681	76.461	1.00	38.73	D
	ATOM	1721	C	ALA	301D	38.672	110.806	74.265	1.00	42.21	D
	ATOM	1722	O	ALA	301D	37.560	111.328	74.355	1.00	44.95	D
	ATOM	1723	N	THR	302D	39.585	111.234	73.401	1.00	42.25	D
	ATOM	1724	CA	THR	302D	39.276	112.345	72.504	1.00	44.75	D
45	ATOM	1725	CB	THR	302D	39.946	113.655	72.962	1.00	45.00	D
	ATOM	1726	OG1	THR	302D	41.315	113.386	73.299	1.00	46.28	D
	ATOM	1727	CG2	THR	302D	39.215	114.252	74.165	1.00	44.67	D
	ATOM	1728	C	THR	302D	39.720	112.108	71.071	1.00	46.06	D
	ATOM	1729	O	THR	302D	40.570	111.257	70.791	1.00	46.42	D
50	ATOM	1730	N	ASP	303D	39.133	112.870	70.159	1.00	46.71	D
	ATOM	1731	CA	ASP	303D	39.511	112.774	68.765	1.00	46.34	D
	ATOM	1732	CB	ASP	303D	38.382	113.293	67.869	1.00	45.96	D
	ATOM	1733	CG	ASP	303D	37.288	112.250	67.649	1.00	46.49	D
	ATOM	1734	OD1	ASP	303D	36.097	112.613	67.576	1.00	48.18	D
55	ATOM	1735	OD2	ASP	303D	37.619	111.056	67.534	1.00	48.24	D
	ATOM	1736	C	ASP	303D	40.778	113.612	68.623	1.00	46.99	D
	ATOM	1737	O	ASP	303D	40.864	114.510	67.782	1.00	47.05	D
	ATOM	1738	N	ALA	304D	41.758	113.305	69.470	1.00	45.82	D
	ATOM	1739	CA	ALA	304D	43.040	113.997	69.467	1.00	47.64	D

	ATOM	1740	CB	ALA	304D	43.917	113.470	70.609	1.00	45.89	D
	ATOM	1741	C	ALA	304D	43.764	113.807	68.132	1.00	48.95	D
	ATOM	1742	O	ALA	304D	43.492	112.857	67.400	1.00	49.00	D
	ATOM	1743	N	PRO	305D	44.700	114.717	67.802	1.00	50.16	D
5	ATOM	1744	CD	PRO	305D	44.992	115.965	68.529	1.00	49.48	D
	ATOM	1745	CA	PRO	305D	45.472	114.650	66.553	1.00	50.12	D
	ATOM	1746	CB	PRO	305D	46.340	115.909	66.612	1.00	49.68	D
	ATOM	1747	CG	PRO	305D	45.506	116.859	67.425	1.00	50.46	D
	ATOM	1748	C	PRO	305D	46.321	113.383	66.524	1.00	50.86	D
10	ATOM	1749	O	PRO	305D	46.673	112.833	67.578	1.00	51.09	D
	ATOM	1750	N	CYS	306D	46.669	112.917	65.330	1.00	50.84	D
	ATOM	1751	CA	CYS	306D	47.472	111.705	65.244	1.00	50.14	D
	ATOM	1752	C	CYS	306D	48.962	112.002	65.428	1.00	49.78	D
	ATOM	1753	O	CYS	306D	49.659	112.372	64.477	1.00	48.40	D
15	ATOM	1754	CB	CYS	306D	47.219	110.982	63.913	1.00	48.98	D
	ATOM	1755	SG	CYS	306D	48.317	109.542	63.745	1.00	49.71	D
	ATOM	1756	N	LYS	307D	49.446	111.819	66.657	1.00	50.32	D
	ATOM	1757	CA	LYS	307D	50.845	112.091	66.975	1.00	51.81	D
	ATOM	1758	CB	LYS	307D	50.979	113.521	67.538	1.00	52.79	D
20	ATOM	1759	CG	LYS	307D	50.720	114.655	66.509	1.00	56.05	D
	ATOM	1760	CD	LYS	307D	50.904	116.073	67.104	1.00	53.84	D
	ATOM	1761	CE	LYS	307D	50.517	117.205	66.151	1.00	53.81	D
	ATOM	1762	NZ	LYS	307D	50.440	118.537	66.874	1.00	51.94	D
	ATOM	1763	C	LYS	307D	51.458	111.093	67.959	1.00	52.37	D
25	ATOM	1764	O	LYS	307D	51.864	111.458	69.063	1.00	54.06	D
	ATOM	1765	N	PRO	308D	51.561	109.819	67.574	1.00	51.54	D
	ATOM	1766	CD	PRO	308D	51.325	109.163	66.274	1.00	51.18	D
	ATOM	1767	CA	PRO	308D	52.153	108.895	68.546	1.00	49.80	D
	ATOM	1768	CB	PRO	308D	51.928	107.541	67.894	1.00	50.54	D
30	ATOM	1769	CG	PRO	308D	52.107	107.870	66.416	1.00	50.56	D
	ATOM	1770	C	PRO	308D	53.635	109.205	68.722	1.00	50.43	D
	ATOM	1771	O	PRO	308D	54.204	109.978	67.943	1.00	49.06	D
	ATOM	1772	N	LYS	309D	54.261	108.610	69.739	1.00	51.35	D
	ATOM	1773	CA	LYS	309D	55.688	108.818	69.958	1.00	53.39	D
35	ATOM	1774	CB	LYS	309D	56.203	107.970	71.133	1.00	52.85	D
	ATOM	1775	CG	LYS	309D	55.752	108.471	72.497	1.00	53.90	D
	ATOM	1776	CD	LYS	309D	56.556	107.871	73.651	1.00	53.55	D
	ATOM	1777	CE	LYS	309D	56.173	108.561	74.969	1.00	54.15	D
	ATOM	1778	NZ	LYS	309D	56.831	107.953	76.178	1.00	55.80	D
40	ATOM	1779	C	LYS	309D	56.415	108.414	68.671	1.00	55.24	D
	ATOM	1780	O	LYS	309D	55.805	107.866	67.748	1.00	54.49	D
	ATOM	1781	N	GLU	310D	57.496	108.893	68.273	1.00	57.19	D
	ATOM	1782	CA	GLU	310D	58.179	108.298	67.129	1.00	58.47	D
	ATOM	1783	CB	GLU	310D	59.070	109.339	66.438	1.00	62.70	D
45	ATOM	1784	CG	GLU	310D	58.283	110.434	65.712	1.00	67.69	D
	ATOM	1785	CD	GLU	310D	59.201	111.414	64.983	1.00	70.48	D
	ATOM	1786	OE1	GLU	310D	60.439	111.381	65.211	1.00	71.31	D
	ATOM	1787	OE2	GLU	310D	58.671	112.219	64.180	1.00	72.31	D
	ATOM	1788	C	GLU	310D	59.007	107.073	67.457	1.00	57.33	D
50	ATOM	1789	O	GLU	310D	59.844	107.086	68.368	1.00	55.05	D
	ATOM	1790	N	ASN	311D	58.599	106.347	66.133	1.00	56.73	D
	ATOM	1791	CA	ASN	311D	58.905	104.964	65.796	1.00	56.06	D
	ATOM	1792	CB	ASN	311D	60.339	104.897	65.288	1.00	59.97	D
	ATOM	1793	CG	ASN	311D	60.614	105.941	64.219	1.00	63.92	D
55	ATOM	1794	OD1	ASN	311D	59.707	106.321	63.455	1.00	65.21	D
	ATOM	1795	ND2	ASN	311D	61.860	106.411	64.149	1.00	63.92	D
	ATOM	1796	C	ASN	311D	58.681	103.888	66.864	1.00	54.41	D
	ATOM	1797	O	ASN	311D	59.600	103.145	67.213	1.00	52.52	D
	ATOM	1798	N	CYS	312D	57.461	103.794	67.378	1.00	52.59	D

	ATOM	1799	CA	CYS	312D	57.160	102.757	68.360	1.00	50.88	D
	ATOM	1800	C	CYS	312D	57.002	101.436	67.600	1.00	48.44	D
	ATOM	1801	O	CYS	312D	56.709	101.432	66.398	1.00	46.22	D
	ATOM	1802	CB	CYS	312D	55.849	103.045	69.080	1.00	52.87	D
5	ATOM	1803	SG	CYS	312D	55.721	104.682	69.861	1.00	55.87	D
	ATOM	1804	N	LEU	313D	57.198	100.326	68.307	1.00	44.82	D
	ATOM	1805	CA	LEU	313D	57.060	99.011	67.713	1.00	41.50	D
	ATOM	1806	CB	LEU	313D	57.373	97.930	68.745	1.00	41.51	D
	ATOM	1807	CG	LEU	313D	57.151	96.486	68.300	1.00	41.80	D
10	ATOM	1808	CD1	LEU	313D	58.136	96.139	67.192	1.00	43.15	D
	ATOM	1809	CD2	LEU	313D	57.342	95.559	69.477	1.00	42.57	D
	ATOM	1810	C	LEU	313D	55.611	98.880	67.275	1.00	41.33	D
	ATOM	1811	O	LEU	313D	54.711	99.391	67.942	1.00	40.94	D
	ATOM	1812	N	ARG	314D	55.382	98.209	66.119	1.00	40.36	D
15	ATOM	1813	CA	ARG	314D	53.996	97.989	65.643	1.00	38.33	D
	ATOM	1814	CB	ARG	314D	53.812	98.644	64.246	1.00	39.43	D
	ATOM	1815	CG	ARG	314D	54.132	100.131	64.405	1.00	35.94	D
	ATOM	1816	CD	ARG	314D	53.498	101.197	63.493	1.00	40.20	D
	ATOM	1817	NE	ARG	314D	52.033	101.439	63.477	1.00	44.23	D
20	ATOM	1818	CZ	ARG	314D	51.442	102.575	63.924	1.00	42.80	D
	ATOM	1819	NH1	ARG	314D	52.156	103.551	64.527	1.00	41.18	D
	ATOM	1820	NH2	ARG	314D	50.143	102.843	63.743	1.00	47.09	D
	ATOM	1821	C	ARG	314D	53.709	96.503	65.590	1.00	38.31	D
	ATOM	1822	O	ARG	314D	54.618	95.686	65.419	1.00	36.01	D
25	ATOM	1823	N	TYR	315D	52.454	96.205	65.895	1.00	38.20	D
	ATOM	1824	CA	TYR	315D	51.979	94.822	65.910	1.00	36.54	D
	ATOM	1825	CB	TYR	315D	51.295	94.489	67.228	1.00	36.49	D
	ATOM	1826	CG	TYR	315D	52.225	94.478	68.409	1.00	36.35	D
	ATOM	1827	CD1	TYR	315D	52.738	95.668	68.934	1.00	37.51	D
30	ATOM	1828	CE1	TYR	315D	53.579	95.658	70.050	1.00	38.66	D
	ATOM	1829	CD2	TYR	315D	52.579	93.277	69.024	1.00	37.39	D
	ATOM	1830	CE2	TYR	315D	53.419	93.255	70.138	1.00	36.28	D
	ATOM	1831	CZ	TYR	315D	53.911	94.441	70.644	1.00	37.26	D
	ATOM	1832	OH	TYR	315D	54.729	94.407	71.743	1.00	40.40	D
35	ATOM	1833	C	TYR	315D	50.994	94.640	64.778	1.00	36.02	D
	ATOM	1834	O	TYR	315D	50.171	95.517	64.512	1.00	36.19	D
	ATOM	1835	N	TYR	316D	51.065	93.490	64.122	1.00	35.57	D
	ATOM	1836	CA	TYR	316D	50.198	93.220	62.989	1.00	34.18	D
	ATOM	1837	CB	TYR	316D	51.052	93.117	61.723	1.00	35.06	D
40	ATOM	1838	CG	TYR	316D	51.792	94.387	61.380	1.00	35.08	D
	ATOM	1839	CD1	TYR	316D	51.290	95.267	60.422	1.00	34.95	D
	ATOM	1840	CE1	TYR	316D	51.953	96.439	60.106	1.00	34.50	D
	ATOM	1841	CD2	TYR	316D	52.986	94.718	62.019	1.00	36.53	D
	ATOM	1842	CE2	TYR	316D	53.663	95.901	61.710	1.00	35.41	D
45	ATOM	1843	CZ	TYR	316D	53.137	96.751	60.751	1.00	37.02	D
	ATOM	1844	OH	TYR	316D	53.782	97.926	60.436	1.00	40.95	D
	ATOM	1845	C	TYR	316D	49.368	91.955	63.128	1.00	34.32	D
	ATOM	1846	O	TYR	316D	49.650	91.085	63.958	1.00	34.67	D
	ATOM	1847	N	SER	317D	48.332	91.867	62.303	1.00	32.02	D
50	ATOM	1848	CA	SER	317D	47.476	90.696	62.280	1.00	32.37	D
	ATOM	1849	CB	SER	317D	45.997	91.092	62.363	1.00	30.76	D
	ATOM	1850	OG	SER	317D	45.638	91.466	63.680	1.00	32.09	D
	ATOM	1851	C	SER	317D	47.745	89.963	60.972	1.00	33.02	D
	ATOM	1852	O	SER	317D	47.640	90.552	59.893	1.00	34.34	D
55	ATOM	1853	N	SER	318D	48.101	88.686	61.072	1.00	33.88	D
	ATOM	1854	CA	SER	318D	48.374	87.864	59.895	1.00	34.38	D
	ATOM	1855	CB	SER	318D	49.175	86.619	60.286	1.00	32.60	D
	ATOM	1856	OG	SER	318D	48.451	85.814	61.198	1.00	33.01	D
	ATOM	1857	C	SER	318D	47.075	87.442	59.206	1.00	35.89	D

	ATOM	1858	O	SER	318D	47.071	87.156	58.011	1.00	36.70	D
	ATOM	1859	N	GLU	319D	45.979	87.397	59.958	1.00	36.23	D
	ATOM	1860	CA	GLU	319D	44.683	87.021	59.394	1.00	37.44	D
	ATOM	1861	CB	GLU	319D	44.568	85.495	59.264	1.00	39.51	D
5	ATOM	1862	CG	GLU	319D	43.190	84.989	58.796	1.00	45.19	D
	ATOM	1863	CD	GLU	319D	42.813	85.403	57.355	1.00	47.22	D
	ATOM	1864	OE1	GLU	319D	42.700	86.618	57.053	1.00	47.01	D
	ATOM	1865	OE2	GLU	319D	42.617	84.491	56.518	1.00	49.62	D
	ATOM	1866	C	GLU	319D	43.537	87.553	60.246	1.00	37.00	D
10	ATOM	1867	O	GLU	319D	43.708	87.831	61.437	1.00	36.83	D
	ATOM	1868	N	TYR	320D	42.376	87.707	59.614	1.00	34.32	D
	ATOM	1869	CA	TYR	320D	41.170	88.200	60.267	1.00	32.80	D
	ATOM	1870	CB	TYR	320D	41.202	89.728	60.429	1.00	32.30	D
	ATOM	1871	CG	TYR	320D	41.458	90.494	59.144	1.00	34.96	D
15	ATOM	1872	CD1	TYR	320D	42.761	90.753	58.708	1.00	31.24	D
	ATOM	1873	CE1	TYR	320D	42.996	91.453	57.542	1.00	31.55	D
	ATOM	1874	CD2	TYR	320D	40.395	90.960	58.362	1.00	32.05	D
	ATOM	1875	CE2	TYR	320D	40.624	91.661	57.188	1.00	31.21	D
	ATOM	1876	CZ	TYR	320D	41.928	91.908	56.785	1.00	32.25	D
20	ATOM	1877	OH	TYR	320D	42.161	92.629	55.638	1.00	33.25	D
	ATOM	1878	C	TYR	320D	39.962	87.796	59.425	1.00	31.66	D
	ATOM	1879	O	TYR	320D	40.030	87.770	58.200	1.00	29.23	D
	ATOM	1880	N	TYR	321D	38.852	87.505	60.091	1.00	31.45	D
	ATOM	1881	CA	TYR	321D	37.653	87.070	59.401	1.00	31.39	D
25	ATOM	1882	CB	TYR	321D	37.870	85.632	58.904	1.00	33.28	D
	ATOM	1883	CG	TYR	321D	38.418	84.718	59.988	1.00	34.81	D
	ATOM	1884	CD1	TYR	321D	37.566	84.114	60.913	1.00	35.66	D
	ATOM	1885	CE1	TYR	321D	38.068	83.379	61.988	1.00	36.78	D
	ATOM	1886	CD2	TYR	321D	39.798	84.551	60.162	1.00	36.50	D
30	ATOM	1887	CE2	TYR	321D	40.311	83.819	61.234	1.00	35.27	D
	ATOM	1888	CZ	TYR	321D	39.439	83.238	62.146	1.00	38.74	D
	ATOM	1889	OH	TYR	321D	39.926	82.532	63.225	1.00	39.93	D
	ATOM	1890	C	TYR	321D	36.461	87.104	60.341	1.00	33.02	D
	ATOM	1891	O	TYR	321D	36.615	87.253	61.557	1.00	33.46	D
35	ATOM	1892	N	TYR	322D	35.269	86.969	59.770	1.00	32.30	D
	ATOM	1893	CA	TYR	322D	34.051	86.912	60.561	1.00	30.61	D
	ATOM	1894	CB	TYR	322D	32.842	87.426	59.766	1.00	28.96	D
	ATOM	1895	CG	TYR	322D	32.679	88.921	59.820	1.00	31.20	D
	ATOM	1896	CD1	TYR	322D	32.686	89.683	58.653	1.00	32.44	D
40	ATOM	1897	CE1	TYR	322D	32.583	91.075	58.701	1.00	31.94	D
	ATOM	1898	CD2	TYR	322D	32.561	89.587	61.046	1.00	30.41	D
	ATOM	1899	CE2	TYR	322D	32.463	90.978	61.105	1.00	30.21	D
	ATOM	1900	CZ	TYR	322D	32.474	91.713	59.930	1.00	32.48	D
	ATOM	1901	OH	TYR	322D	32.387	93.085	59.971	1.00	32.97	D
45	ATOM	1902	C	TYR	322D	33.856	85.441	60.876	1.00	30.68	D
	ATOM	1903	O	TYR	322D	34.125	84.595	60.027	1.00	31.16	D
	ATOM	1904	N	VAL	323D	33.425	85.134	62.098	1.00	31.53	D
	ATOM	1905	CA	VAL	323D	33.166	83.752	62.474	1.00	31.70	D
	ATOM	1906	CB	VAL	323D	32.656	83.641	63.931	1.00	31.76	D
50	ATOM	1907	CG1	VAL	323D	32.199	82.222	64.216	1.00	29.24	D
	ATOM	1908	CG2	VAL	323D	33.761	84.036	64.897	1.00	30.76	D
	ATOM	1909	C	VAL	323D	32.084	83.263	61.514	1.00	32.07	D
	ATOM	1910	O	VAL	323D	31.025	83.864	61.395	1.00	31.97	D
	ATOM	1911	N	GLY	324D	32.362	82.175	60.815	1.00	32.96	D
55	ATOM	1912	CA	GLY	324D	31.403	81.670	59.855	1.00	33.37	D
	ATOM	1913	C	GLY	324D	31.908	81.981	58.462	1.00	32.95	D
	ATOM	1914	O	GLY	324D	31.323	81.546	57.474	1.00	34.70	D
	ATOM	1915	N	GLY	325D	32.986	82.757	58.386	1.00	32.14	D
	ATOM	1916	CA	GLY	325D	33.577	83.088	57.101	1.00	32.65	D

	ATOM	1917	C	GLY	325D	33.227	84.432	56.493	1.00	34.07	D
	ATOM	1918	O	GLY	325D	33.991	84.961	55.691	1.00	35.76	D
	ATOM	1919	N	PHE	326D	32.078	84.987	56.863	1.00	32.05	D
	ATOM	1920	CA	PHE	326D	31.644	86.270	56.325	1.00	31.75	D
5	ATOM	1921	CB	PHE	326D	31.239	86.115	54.849	1.00	30.88	D
	ATOM	1922	CG	PHE	326D	30.237	85.016	54.614	1.00	32.28	D
	ATOM	1923	CD1	PHE	326D	28.881	85.218	54.878	1.00	32.17	D
	ATOM	1924	CD2	PHE	326D	30.662	83.746	54.226	1.00	31.14	D
	ATOM	1925	CE1	PHE	326D	27.965	84.174	54.772	1.00	33.66	D
10	ATOM	1926	CE2	PHE	326D	29.758	82.690	54.115	1.00	32.27	D
	ATOM	1927	CZ	PHE	326D	28.406	82.902	54.391	1.00	35.18	D
	ATOM	1928	C	PHE	326D	30.454	86.731	57.150	1.00	32.65	D
	ATOM	1929	O	PHE	326D	29.828	85.926	57.832	1.00	31.19	D
	ATOM	1930	N	TYR	327D	30.151	88.024	57.088	1.00	32.42	D
15	ATOM	1931	CA	TYR	327D	29.032	88.574	57.835	1.00	31.51	D
	ATOM	1932	CB	TYR	327D	28.919	90.075	57.590	1.00	34.32	D
	ATOM	1933	CG	TYR	327D	27.836	90.739	58.404	1.00	34.97	D
	ATOM	1934	CD1	TYR	327D	27.647	90.407	59.746	1.00	36.83	D
	ATOM	1935	CE1	TYR	327D	26.682	91.041	60.515	1.00	35.25	D
20	ATOM	1936	CD2	TYR	327D	27.029	91.726	57.851	1.00	35.25	D
	ATOM	1937	CE2	TYR	327D	26.061	92.371	58.612	1.00	36.36	D
	ATOM	1938	CZ	TYR	327D	25.894	92.023	59.945	1.00	35.11	D
	ATOM	1939	OH	TYR	327D	24.944	92.659	60.704	1.00	34.04	D
	ATOM	1940	C	TYR	327D	27.730	87.889	57.447	1.00	31.95	D
25	ATOM	1941	O	TYR	327D	27.277	87.965	56.300	1.00	29.67	D
	ATOM	1942	N	GLY	328D	27.136	87.213	58.422	1.00	31.08	D
	ATOM	1943	CA	GLY	328D	25.902	86.504	58.181	1.00	30.84	D
	ATOM	1944	C	GLY	328D	26.052	85.023	58.455	1.00	32.16	D
	ATOM	1945	O	GLY	328D	25.057	84.314	58.576	1.00	32.19	D
30	ATOM	1946	N	GLY	329D	27.290	84.551	58.570	1.00	31.82	D
	ATOM	1947	CA	GLY	329D	27.506	83.136	58.823	1.00	32.74	D
	ATOM	1948	C	GLY	329D	27.713	82.726	60.269	1.00	31.70	D
	ATOM	1949	O	GLY	329D	27.891	81.545	60.559	1.00	30.76	D
	ATOM	1950	N	CYS	330D	27.667	83.687	61.181	1.00	32.75	D
35	ATOM	1951	CA	CYS	330D	27.879	83.421	62.603	1.00	33.51	D
	ATOM	1952	CB	CYS	330D	28.074	84.761	63.330	1.00	34.94	D
	ATOM	1953	SG	CYS	330D	28.595	84.698	65.068	1.00	33.58	D
	ATOM	1954	C	CYS	330D	26.770	82.618	63.296	1.00	35.17	D
	ATOM	1955	O	CYS	330D	25.607	82.679	62.910	1.00	34.12	D
40	ATOM	1956	N	ASN	331D	27.155	81.836	64.303	1.00	36.70	D
	ATOM	1957	CA	ASN	331D	26.213	81.067	65.117	1.00	35.98	D
	ATOM	1958	CB	ASN	331D	25.631	79.864	64.354	1.00	35.64	D
	ATOM	1959	CG	ASN	331D	26.636	78.748	64.124	1.00	37.76	D
	ATOM	1960	OD1	ASN	331D	27.201	78.187	65.066	1.00	38.28	D
45	ATOM	1961	ND2	ASN	331D	26.845	78.402	62.858	1.00	38.14	D
	ATOM	1962	C	ASN	331D	26.932	80.625	66.388	1.00	36.65	D
	ATOM	1963	O	ASN	331D	28.162	80.581	66.421	1.00	36.77	D
	ATOM	1964	N	GLU	332D	26.169	80.319	67.432	1.00	37.40	D
	ATOM	1965	CA	GLU	332D	26.731	79.900	68.718	1.00	37.73	D
50	ATOM	1966	CB	GLU	332D	25.605	79.417	69.655	1.00	39.70	D
	ATOM	1967	CG	GLU	332D	26.104	78.504	70.786	1.00	42.08	D
	ATOM	1968	CD	GLU	332D	25.008	78.053	71.739	1.00	43.70	D
	ATOM	1969	OE1	GLU	332D	23.844	77.899	71.301	1.00	45.28	D
	ATOM	1970	OE2	GLU	332D	25.320	77.831	72.933	1.00	44.40	D
55	ATOM	1971	C	GLU	332D	27.838	78.832	68.670	1.00	36.61	D
	ATOM	1972	O	GLU	332D	28.892	78.994	69.291	1.00	36.38	D
	ATOM	1973	N	ALA	333D	27.592	77.741	67.951	1.00	35.01	D
	ATOM	1974	CA	ALA	333D	28.558	76.641	67.850	1.00	33.63	D
	ATOM	1975	CB	ALA	333D	27.964	75.504	67.004	1.00	31.77	D

	ATOM	1976	C	ALA	333D	29.930	77.051	67.294	1.00	34.22	D
	ATOM	1977	O	ALA	333D	30.963	76.676	67.848	1.00	36.15	D
	ATOM	1978	N	LEU	334D	29.940	77.803	66.194	1.00	33.77	D
	ATOM	1979	CA	LEU	334D	31.189	78.258	65.597	1.00	32.60	D
5	ATOM	1980	CB	LEU	334D	30.929	78.925	64.244	1.00	32.34	D
	ATOM	1981	CG	LEU	334D	30.340	78.021	63.157	1.00	32.75	D
	ATOM	1982	CD1	LEU	334D	30.008	78.855	61.929	1.00	31.61	D
	ATOM	1983	CD2	LEU	334D	31.328	76.905	62.810	1.00	30.02	D
	ATOM	1984	C	LEU	334D	31.901	79.230	66.526	1.00	33.08	D
10	ATOM	1985	O	LEU	334D	33.124	79.279	66.549	1.00	33.88	D
	ATOM	1986	N	MET	335D	31.135	80.012	67.283	1.00	32.36	D
	ATOM	1987	CA	MET	335D	31.724	80.955	68.226	1.00	32.17	D
	ATOM	1988	CB	MET	335D	30.643	81.858	68.835	1.00	33.28	D
	ATOM	1989	CG	MET	335D	30.136	82.958	67.907	1.00	32.00	D
15	ATOM	1990	SD	MET	335D	28.628	83.776	68.529	1.00	33.11	D
	ATOM	1991	CE	MET	335D	29.315	84.778	69.861	1.00	29.76	D
	ATOM	1992	C	MET	335D	32.449	80.179	69.332	1.00	30.38	D
	ATOM	1993	O	MET	335D	33.585	80.508	69.686	1.00	29.99	D
	ATOM	1994	N	LYS	336D	31.792	79.149	69.866	1.00	29.70	D
20	ATOM	1995	CA	LYS	336D	32.384	78.317	70.912	1.00	32.70	D
	ATOM	1996	CB	LYS	336D	31.415	77.210	71.338	1.00	31.01	D
	ATOM	1997	CG	LYS	336D	30.333	77.650	72.300	1.00	31.76	D
	ATOM	1998	CD	LYS	336D	29.262	76.574	72.465	1.00	30.72	D
	ATOM	1999	CE	LYS	336D	29.783	75.348	73.184	1.00	30.72	D
25	ATOM	2000	NZ	LYS	336D	28.771	74.254	73.193	1.00	30.23	D
	ATOM	2001	C	LYS	336D	33.684	77.680	70.416	1.00	34.90	D
	ATOM	2002	O	LYS	336D	34.671	77.609	71.152	1.00	35.75	D
	ATOM	2003	N	LEU	337D	33.676	77.214	69.168	1.00	34.39	D
	ATOM	2004	CA	LEU	337D	34.855	76.586	68.580	1.00	34.73	D
30	ATOM	2005	CB	LEU	337D	34.506	75.990	67.212	1.00	36.62	D
	ATOM	2006	CG	LEU	337D	35.582	75.238	66.423	1.00	39.73	D
	ATOM	2007	CD1	LEU	337D	36.162	74.108	67.272	1.00	38.38	D
	ATOM	2008	CD2	LEU	337D	34.958	74.677	65.136	1.00	39.38	D
	ATOM	2009	C	LEU	337D	35.982	77.604	68.435	1.00	34.35	D
35	ATOM	2010	O	LEU	337D	37.113	77.364	68.862	1.00	35.54	D
	ATOM	2011	N	GLU	338D	35.668	78.746	67.832	1.00	32.29	D
	ATOM	2012	CA	GLU	338D	36.658	79.798	67.647	1.00	32.37	D
	ATOM	2013	CB	GLU	338D	36.032	80.980	66.908	1.00	30.50	D
	ATOM	2014	CG	GLU	338D	36.963	82.159	66.687	1.00	32.15	D
40	ATOM	2015	CD	GLU	338D	38.134	81.828	65.781	1.00	33.83	D
	ATOM	2016	OE1	GLU	338D	37.968	80.977	64.884	1.00	36.26	D
	ATOM	2017	OE2	GLU	338D	39.215	82.434	65.952	1.00	35.56	D
	ATOM	2018	C	GLU	338D	37.207	80.261	68.996	1.00	31.66	D
	ATOM	2019	O	GLU	338D	38.399	80.506	69.131	1.00	31.49	D
45	ATOM	2020	N	LEU	339D	36.331	80.374	69.991	1.00	31.90	D
	ATOM	2021	CA	LEU	339D	36.749	80.811	71.314	1.00	32.78	D
	ATOM	2022	CB	LEU	339D	35.539	80.929	72.250	1.00	32.61	D
	ATOM	2023	CG	LEU	339D	35.847	81.466	73.651	1.00	34.38	D
	ATOM	2024	CD1	LEU	339D	36.332	82.900	73.545	1.00	31.74	D
50	ATOM	2025	CD2	LEU	339D	34.604	81.404	74.533	1.00	34.86	D
	ATOM	2026	C	LEU	339D	37.776	79.866	71.934	1.00	32.19	D
	ATOM	2027	O	LEU	339D	38.866	80.277	72.302	1.00	33.05	D
	ATOM	2028	N	VAL	340D	37.432	78.591	72.033	1.00	32.93	D
	ATOM	2029	CA	VAL	340D	38.334	77.628	72.647	1.00	35.48	D
55	ATOM	2030	CB	VAL	340D	37.604	76.285	72.900	1.00	37.63	D
	ATOM	2031	CG1	VAL	340D	38.528	75.319	73.607	1.00	39.05	D
	ATOM	2032	CG2	VAL	340D	36.363	76.521	73.751	1.00	35.15	D
	ATOM	2033	C	VAL	340D	39.616	77.380	71.857	1.00	36.51	D
	ATOM	2034	O	VAL	340D	40.684	77.228	72.440	1.00	38.25	D

	ATOM	2035	N	LYS	341D	39.509	77.359	70.534	1.00	37.06	D
	ATOM	2036	CA	LYS	341D	40.648	77.124	69.648	1.00	36.80	D
	ATOM	2037	CB	LYS	341D	40.143	76.810	68.241	1.00	40.41	D
	ATOM	2038	CG	LYS	341D	40.372	75.404	67.745	1.00	44.82	D
5	ATOM	2039	CD	LYS	341D	39.780	75.249	66.334	1.00	48.70	D
	ATOM	2040	CE	LYS	341D	40.287	73.992	65.637	1.00	51.48	D
	ATOM	2041	NZ	LYS	341D	41.780	74.035	65.448	1.00	52.86	D
	ATOM	2042	C	LYS	341D	41.639	78.287	69.534	1.00	38.03	D
	ATOM	2043	O	LYS	341D	42.850	78.092	69.629	1.00	36.41	D
10	ATOM	2044	N	HIS	342D	41.131	79.497	69.322	1.00	37.39	D
	ATOM	2045	CA	HIS	342D	42.020	80.635	69.134	1.00	38.95	D
	ATOM	2046	CB	HIS	342D	41.790	81.227	67.738	1.00	39.83	D
	ATOM	2047	CG	HIS	342D	41.886	80.212	66.641	1.00	40.53	D
	ATOM	2048	CD2	HIS	342D	40.935	79.656	65.855	1.00	41.36	D
15	ATOM	2049	ND1	HIS	342D	43.070	79.586	66.309	1.00	42.40	D
	ATOM	2050	CE1	HIS	342D	42.842	78.686	65.370	1.00	41.54	D
	ATOM	2051	NE2	HIS	342D	41.553	78.707	65.077	1.00	42.53	D
	ATOM	2052	C	HIS	342D	41.984	81.744	70.172	1.00	38.85	D
	ATOM	2053	O	HIS	342D	42.810	82.653	70.117	1.00	38.88	D
20	ATOM	2054	N	GLY	343D	41.044	81.677	71.110	1.00	37.75	D
	ATOM	2055	CA	GLY	343D	40.971	82.700	72.140	1.00	36.68	D
	ATOM	2056	C	GLY	343D	39.824	83.694	72.029	1.00	36.64	D
	ATOM	2057	O	GLY	343D	38.954	83.562	71.160	1.00	37.42	D
	ATOM	2058	N	PRO	344D	39.791	84.701	72.920	1.00	34.78	D
25	ATOM	2059	CD	PRO	344D	40.711	84.866	74.065	1.00	34.64	D
	ATOM	2060	CA	PRO	344D	38.756	85.736	72.940	1.00	32.82	D
	ATOM	2061	CB	PRO	344D	39.261	86.701	74.010	1.00	32.66	D
	ATOM	2062	CG	PRO	344D	39.921	85.768	74.988	1.00	34.67	D
	ATOM	2063	C	PRO	344D	38.563	86.417	71.590	1.00	31.27	D
30	ATOM	2064	O	PRO	344D	39.525	86.677	70.864	1.00	31.59	D
	ATOM	2065	N	MET	345D	37.310	86.711	71.268	1.00	30.45	D
	ATOM	2066	CA	MET	345D	36.968	87.359	70.010	1.00	32.32	D
	ATOM	2067	CB	MET	345D	36.295	86.362	69.073	1.00	30.74	D
	ATOM	2068	CG	MET	345D	34.900	86.002	69.512	1.00	32.71	D
35	ATOM	2069	SD	MET	345D	34.308	84.547	68.690	1.00	35.89	D
	ATOM	2070	CE	MET	345D	35.034	83.301	69.720	1.00	33.56	D
	ATOM	2071	C	MET	345D	36.027	88.548	70.207	1.00	33.20	D
	ATOM	2072	O	MET	345D	35.383	88.694	71.251	1.00	33.90	D
	ATOM	2073	N	ALA	346D	35.945	89.381	69.176	1.00	33.18	D
40	ATOM	2074	CA	ALA	346D	35.083	90.550	69.192	1.00	33.51	D
	ATOM	2075	CB	ALA	346D	35.629	91.611	68.236	1.00	32.10	D
	ATOM	2076	C	ALA	346D	33.649	90.187	68.804	1.00	34.12	D
	ATOM	2077	O	ALA	346D	33.412	89.342	67.936	1.00	34.73	D
	ATOM	2078	N	VAL	347D	32.701	90.827	69.478	1.00	34.39	D
45	ATOM	2079	CA	VAL	347D	31.282	90.646	69.214	1.00	32.93	D
	ATOM	2080	CB	VAL	347D	30.634	89.607	70.168	1.00	32.26	D
	ATOM	2081	CG1	VAL	347D	31.257	88.239	69.946	1.00	31.80	D
	ATOM	2082	CG2	VAL	347D	30.796	90.041	71.612	1.00	30.43	D
	ATOM	2083	C	VAL	347D	30.632	91.999	69.446	1.00	33.63	D
50	ATOM	2084	O	VAL	347D	31.169	92.830	70.176	1.00	34.41	D
	ATOM	2085	N	ALA	348D	29.493	92.235	68.808	1.00	32.97	D
	ATOM	2086	CA	ALA	348D	28.770	93.487	68.992	1.00	32.08	D
	ATOM	2087	CB	ALA	348D	28.900	94.369	67.752	1.00	32.24	D
	ATOM	2088	C	ALA	348D	27.310	93.142	69.259	1.00	31.90	D
55	ATOM	2089	O	ALA	348D	26.837	92.087	68.851	1.00	32.63	D
	ATOM	2090	N	PHE	349D	26.598	94.017	69.954	1.00	31.97	D
	ATOM	2091	CA	PHE	349D	25.196	93.762	70.258	1.00	32.73	D
	ATOM	2092	CB	PHE	349D	25.070	92.871	71.494	1.00	31.29	D
	ATOM	2093	CG	PHE	349D	25.500	93.537	72.773	1.00	32.83	D

212

	ATOM	2094	CD1	PHE	349D	26.837	93.853	72.998	1.00	30.76	D
	ATOM	2095	CD2	PHE	349D	24.564	93.823	73.771	1.00	33.25	D
	ATOM	2096	CE1	PHE	349D	27.244	94.438	74.203	1.00	33.71	D
	ATOM	2097	CE2	PHE	349D	24.959	94.408	74.985	1.00	34.19	D
5	ATOM	2098	CZ	PHE	349D	26.305	94.715	75.201	1.00	34.21	D
	ATOM	2099	C	PHE	349D	24.477	95.076	70.508	1.00	33.85	D
	ATOM	2100	O	PHE	349D	25.096	96.137	70.479	1.00	35.04	D
	ATOM	2101	N	GLU	350D	23.173	95.007	70.757	1.00	34.78	D
	ATOM	2102	CA	GLU	350D	22.402	96.217	71.017	1.00	36.58	D
10	ATOM	2103	CB	GLU	350D	20.988	96.100	70.437	1.00	39.17	D
	ATOM	2104	CG	GLU	350D	20.374	97.456	70.089	1.00	43.00	D
	ATOM	2105	CD	GLU	350D	18.877	97.384	69.808	1.00	44.91	D
	ATOM	2106	OE1	GLU	350D	18.420	96.395	69.193	1.00	44.01	D
	ATOM	2107	OE2	GLU	350D	18.158	98.335	70.195	1.00	46.98	D
15	ATOM	2108	C	GLU	350D	22.301	96.502	72.513	1.00	35.36	D
	ATOM	2109	O	GLU	350D	21.744	95.707	73.262	1.00	31.99	D
	ATOM	2110	N	VAL	351D	22.856	97.633	72.943	1.00	37.41	D
	ATOM	2111	CA	VAL	351D	22.787	98.026	74.353	1.00	38.55	D
	ATOM	2112	CB	VAL	351D	23.930	98.997	74.740	1.00	37.18	D
20	ATOM	2113	CG1	VAL	351D	23.613	99.680	76.058	1.00	37.59	D
	ATOM	2114	CG2	VAL	351D	25.232	98.239	74.874	1.00	38.04	D
	ATOM	2115	C	VAL	351D	21.451	98.724	74.608	1.00	38.24	D
	ATOM	2116	O	VAL	351D	21.145	99.734	73.984	1.00	39.22	D
	ATOM	2117	N	HIS	352D	20.648	98.164	75.503	1.00	39.23	D
25	ATOM	2118	CA	HIS	352D	19.364	98.763	75.841	1.00	41.67	D
	ATOM	2119	CB	HIS	352D	18.288	97.697	75.980	1.00	41.13	D
	ATOM	2120	CG	HIS	352D	17.927	97.045	74.687	1.00	42.89	D
	ATOM	2121	CD2	HIS	352D	18.164	95.797	74.219	1.00	41.03	D
	ATOM	2122	ND1	HIS	352D	17.242	97.705	73.689	1.00	43.67	D
30	ATOM	2123	CE1	HIS	352D	17.071	96.889	72.663	1.00	43.29	D
	ATOM	2124	NE2	HIS	352D	17.622	95.725	72.960	1.00	41.22	D
	ATOM	2125	C	HIS	352D	19.521	99.512	77.145	1.00	42.57	D
	ATOM	2126	O	HIS	352D	20.595	99.524	77.740	1.00	43.22	D
	ATOM	2127	N	ASP	353D	18.455	100.142	77.600	1.00	43.27	D
35	ATOM	2128	CA	ASP	353D	18.560	100.890	78.825	1.00	44.00	D
	ATOM	2129	CB	ASP	353D	17.337	101.765	79.006	1.00	48.81	D
	ATOM	2130	CG	ASP	353D	17.714	103.198	79.196	1.00	54.39	D
	ATOM	2131	OD1	ASP	353D	18.036	103.848	78.165	1.00	57.24	D
	ATOM	2132	OD2	ASP	353D	17.724	103.655	80.372	1.00	55.38	D
40	ATOM	2133	C	ASP	353D	18.770	100.030	80.059	1.00	42.66	D
	ATOM	2134	O	ASP	353D	19.592	100.361	80.914	1.00	42.01	D
	ATOM	2135	N	ASP	354D	18.027	98.934	80.159	1.00	42.23	D
	ATOM	2136	CA	ASP	354D	18.169	98.040	81.306	1.00	43.33	D
	ATOM	2137	CB	ASP	354D	17.229	96.841	81.174	1.00	42.16	D
45	ATOM	2138	CG	ASP	354D	17.389	96.102	79.847	1.00	43.35	D
	ATOM	2139	OD1	ASP	354D	18.369	96.372	79.115	1.00	39.68	D
	ATOM	2140	OD2	ASP	354D	16.527	95.243	79.547	1.00	41.72	D
	ATOM	2141	C	ASP	354D	19.605	97.537	81.463	1.00	44.05	D
	ATOM	2142	O	ASP	354D	20.034	97.206	82.573	1.00	46.89	D
50	ATOM	2143	N	PHE	355D	20.350	97.497	80.359	1.00	42.64	D
	ATOM	2144	CA	PHE	355D	21.731	97.011	80.380	1.00	41.15	D
	ATOM	2145	CB	PHE	355D	22.236	96.768	78.943	1.00	38.40	D
	ATOM	2146	CG	PHE	355D	23.568	96.073	78.876	1.00	33.95	D
	ATOM	2147	CD1	PHE	355D	23.651	94.689	78.952	1.00	35.87	D
55	ATOM	2148	CD2	PHE	355D	24.744	96.804	78.776	1.00	35.35	D
	ATOM	2149	CE1	PHE	355D	24.891	94.043	78.933	1.00	32.94	D
	ATOM	2150	CE2	PHE	355D	25.985	96.167	78.758	1.00	32.91	D
	ATOM	2151	CZ	PHE	355D	26.054	94.787	78.836	1.00	32.76	D
	ATOM	2152	C	PHE	355D	22.667	97.980	81.090	1.00	40.52	D

213

	ATOM	2153	O	PHE	355D	23.627	97.571	81.734	1.00	39.70	D
	ATOM	2154	N	LEU	356D	22.389	99.269	80.970	1.00	42.40	D
	ATOM	2155	CA	LEU	356D	23.237	100.278	81.600	1.00	42.80	D
	ATOM	2156	CB	LEU	356D	22.711	101.667	81.250	1.00	42.98	D
5	ATOM	2157	CG	LEU	356D	22.602	101.917	79.749	1.00	43.01	D
	ATOM	2158	CD1	LEU	356D	22.173	103.355	79.515	1.00	41.96	D
	ATOM	2159	CD2	LEU	356D	23.947	101.644	79.085	1.00	43.23	D
	ATOM	2160	C	LEU	356D	23.355	100.134	83.121	1.00	42.09	D
	ATOM	2161	O	LEU	356D	24.369	100.502	83.705	1.00	42.02	D
10	ATOM	2162	N	HIS	357D	22.322	99.596	83.756	1.00	42.28	D
	ATOM	2163	CA	HIS	357D	22.331	99.425	85.207	1.00	44.19	D
	ATOM	2164	CB	HIS	357D	20.976	99.850	85.786	1.00	44.17	D
	ATOM	2165	CG	HIS	357D	20.616	101.267	85.472	1.00	45.71	D
	ATOM	2166	CD2	HIS	357D	19.794	101.789	84.530	1.00	45.84	D
15	ATOM	2167	ND1	HIS	357D	21.210	102.341	86.102	1.00	45.86	D
	ATOM	2168	CE1	HIS	357D	20.774	103.463	85.558	1.00	45.27	D
	ATOM	2169	NE2	HIS	357D	19.915	103.157	84.601	1.00	46.46	D
	ATOM	2170	C	HIS	357D	22.642	97.987	85.617	1.00	42.94	D
	ATOM	2171	O	HIS	357D	22.380	97.588	86.751	1.00	41.95	D
20	ATOM	2172	N	TYR	358D	23.199	97.212	84.690	1.00	41.10	D
	ATOM	2173	CA	TYR	358D	23.542	95.827	84.974	1.00	40.29	D
	ATOM	2174	CB	TYR	358D	24.185	95.183	83.752	1.00	38.69	D
	ATOM	2175	CG	TYR	358D	24.763	93.813	84.029	1.00	36.05	D
	ATOM	2176	CD1	TYR	358D	23.951	92.680	84.055	1.00	34.16	D
25	ATOM	2177	CE1	TYR	358D	24.494	91.416	84.297	1.00	33.09	D
	ATOM	2178	CD2	TYR	358D	26.126	93.653	84.263	1.00	33.51	D
	ATOM	2179	CE2	TYR	358D	26.672	92.404	84.511	1.00	32.71	D
	ATOM	2180	CZ	TYR	358D	25.860	91.288	84.522	1.00	32.23	D
	ATOM	2181	OH	TYR	358D	26.424	90.048	84.727	1.00	31.66	D
30	ATOM	2182	C	TYR	358D	24.504	95.707	86.158	1.00	40.78	D
	ATOM	2183	O	TYR	358D	25.487	96.433	86.250	1.00	39.99	D
	ATOM	2184	N	HIS	359D	24.224	94.780	87.060	1.00	41.39	D
	ATOM	2185	CA	HIS	359D	25.099	94.584	88.208	1.00	42.70	D
	ATOM	2186	CB	HIS	359D	24.359	94.938	89.502	1.00	45.88	D
35	ATOM	2187	CG	HIS	359D	24.170	96.411	89.693	1.00	49.58	D
	ATOM	2188	CD2	HIS	359D	23.092	97.207	89.493	1.00	52.11	D
	ATOM	2189	ND1	HIS	359D	25.199	97.246	90.069	1.00	52.14	D
	ATOM	2190	CE1	HIS	359D	24.767	98.497	90.090	1.00	53.10	D
	ATOM	2191	NE2	HIS	359D	23.491	98.502	89.743	1.00	53.27	D
40	ATOM	2192	C	HIS	359D	25.636	93.167	88.283	1.00	40.81	D
	ATOM	2193	O	HIS	359D	26.831	92.963	88.491	1.00	41.41	D
	ATOM	2194	N	SER	360D	24.762	92.186	88.087	1.00	38.69	D
	ATOM	2195	CA	SER	360D	25.176	90.792	88.163	1.00	38.44	D
	ATOM	2196	CB	SER	360D	25.369	90.380	89.629	1.00	38.76	D
45	ATOM	2197	OG	SER	360D	24.119	90.328	90.295	1.00	37.56	D
	ATOM	2198	C	SER	360D	24.133	89.887	87.540	1.00	36.82	D
	ATOM	2199	O	SER	360D	23.023	90.323	87.242	1.00	36.19	D
	ATOM	2200	N	GLY	361D	24.493	88.619	87.362	1.00	36.23	D
	ATOM	2201	CA	GLY	361D	23.564	87.663	86.788	1.00	35.84	D
50	ATOM	2202	C	GLY	361D	23.665	87.545	85.281	1.00	37.09	D
	ATOM	2203	O	GLY	361D	24.531	88.156	84.643	1.00	36.29	D
	ATOM	2204	N	ILE	362D	22.774	86.745	84.711	1.00	36.68	D
	ATOM	2205	CA	ILE	362D	22.746	86.532	83.275	1.00	37.29	D
	ATOM	2206	CB	ILE	362D	22.305	85.101	82.954	1.00	38.61	D
55	ATOM	2207	CG2	ILE	362D	22.434	84.837	81.451	1.00	36.48	D
	ATOM	2208	CG1	ILE	362D	23.163	84.120	83.759	1.00	37.04	D
	ATOM	2209	CD	ILE	362D	22.631	82.719	83.756	1.00	40.13	D
	ATOM	2210	C	ILE	362D	21.762	87.506	82.650	1.00	38.07	D
	ATOM	2211	O	ILE	362D	20.551	87.342	82.787	1.00	38.57	D

	ATOM	2212	N	TYR	363D	22.286	88.522	81.970	1.00	38.58	D
	ATOM	2213	CA	TYR	363D	21.449	89.530	81.320	1.00	38.64	D
	ATOM	2214	CB	TYR	363D	22.326	90.632	80.709	1.00	37.75	D
	ATOM	2215	CG	TYR	363D	21.569	91.672	79.898	1.00	38.84	D
5	ATOM	2216	CD1	TYR	363D	20.851	92.694	80.519	1.00	35.65	D
	ATOM	2217	CE1	TYR	363D	20.135	93.627	79.774	1.00	36.50	D
	ATOM	2218	CD2	TYR	363D	21.556	91.613	78.502	1.00	39.21	D
	ATOM	2219	CE2	TYR	363D	20.847	92.541	77.744	1.00	39.25	D
	ATOM	2220	CZ	TYR	363D	20.135	93.545	78.384	1.00	38.64	D
10	ATOM	2221	OH	TYR	363D	19.404	94.434	77.627	1.00	34.87	D
	ATOM	2222	C	TYR	363D	20.543	88.943	80.228	1.00	39.91	D
	ATOM	2223	O	TYR	363D	20.921	88.019	79.509	1.00	38.03	D
	ATOM	2224	N	HIS	364D	19.337	89.500	80.140	1.00	42.59	D
	ATOM	2225	CA	HIS	364D	18.323	89.133	79.154	1.00	44.31	D
15	ATOM	2226	CB	HIS	364D	17.471	87.949	79.619	1.00	46.90	D
	ATOM	2227	CG	HIS	364D	16.228	87.759	78.805	1.00	53.54	D
	ATOM	2228	CD2	HIS	364D	14.925	88.005	79.094	1.00	55.02	D
	ATOM	2229	ND1	HIS	364D	16.255	87.344	77.487	1.00	55.47	D
	ATOM	2230	CE1	HIS	364D	15.024	87.346	77.000	1.00	56.21	D
20	ATOM	2231	NE2	HIS	364D	14.199	87.744	77.955	1.00	56.01	D
	ATOM	2232	C	HIS	364D	17.438	90.370	79.060	1.00	44.39	D
	ATOM	2233	O	HIS	364D	16.886	90.815	80.067	1.00	44.84	D
	ATOM	2234	N	HIS	365D	17.296	90.930	77.865	1.00	43.42	D
	ATOM	2235	CA	HIS	365D	16.489	92.134	77.708	1.00	42.69	D
25	ATOM	2236	CB	HIS	365D	16.693	92.724	76.317	1.00	39.94	D
	ATOM	2237	CG	HIS	365D	15.973	94.016	76.109	1.00	41.23	D
	ATOM	2238	CD2	HIS	365D	15.031	94.378	75.207	1.00	40.47	D
	ATOM	2239	ND1	HIS	365D	16.189	95.122	76.903	1.00	39.26	D
	ATOM	2240	CE1	HIS	365D	15.413	96.109	76.499	1.00	40.19	D
30	ATOM	2241	NE2	HIS	365D	14.700	95.684	75.470	1.00	41.84	D
	ATOM	2242	C	HIS	365D	15.002	91.911	77.964	1.00	40.88	D
	ATOM	2243	O	HIS	365D	14.372	91.087	77.307	1.00	41.60	D
	ATOM	2244	N	PRO	371D	16.199	86.801	49.012	1.00	51.20	D
	ATOM	2245	CD	PRO	371D	15.039	87.644	48.657	1.00	53.19	D
35	ATOM	2246	CA	PRO	371D	17.426	87.604	49.085	1.00	51.16	D
	ATOM	2247	CB	PRO	371D	16.996	88.950	48.498	1.00	51.20	D
	ATOM	2248	CG	PRO	371D	15.559	89.047	48.929	1.00	52.17	D
	ATOM	2249	C	PRO	371D	17.988	87.728	50.507	1.00	50.71	D
	ATOM	2250	O	PRO	371D	17.382	88.341	51.394	1.00	49.90	D
40	ATOM	2251	N	PHE	372D	19.153	87.119	50.698	1.00	48.27	D
	ATOM	2252	CA	PHE	372D	19.871	87.112	51.959	1.00	46.41	D
	ATOM	2253	CB	PHE	372D	21.221	86.412	51.728	1.00	46.35	D
	ATOM	2254	CG	PHE	372D	22.006	86.153	52.975	1.00	46.01	D
	ATOM	2255	CD1	PHE	372D	21.455	85.425	54.024	1.00	46.01	D
45	ATOM	2256	CD2	PHE	372D	23.311	86.633	53.099	1.00	46.91	D
	ATOM	2257	CE1	PHE	372D	22.192	85.177	55.183	1.00	45.87	D
	ATOM	2258	CE2	PHE	372D	24.058	86.391	54.255	1.00	44.89	D
	ATOM	2259	CZ	PHE	372D	23.496	85.662	55.298	1.00	45.28	D
	ATOM	2260	C	PHE	372D	20.066	88.550	52.474	1.00	45.41	D
50	ATOM	2261	O	PHE	372D	20.288	89.475	51.695	1.00	44.79	D
	ATOM	2262	N	ASN	373D	19.951	88.729	53.788	1.00	44.27	D
	ATOM	2263	CA	ASN	373D	20.128	90.030	54.435	1.00	43.16	D
	ATOM	2264	CB	ASN	373D	18.872	90.889	54.298	1.00	42.56	D
	ATOM	2265	CG	ASN	373D	19.097	92.318	54.773	1.00	45.24	D
55	ATOM	2266	OD1	ASN	373D	19.966	92.576	55.610	1.00	43.59	D
	ATOM	2267	ND2	ASN	373D	18.309	93.251	54.248	1.00	45.60	D
	ATOM	2268	C	ASN	373D	20.385	89.740	55.913	1.00	41.57	D
	ATOM	2269	O	ASN	373D	19.455	89.671	56.715	1.00	40.99	D
	ATOM	2270	N	PRO	374D	21.662	89.586	56.291	1.00	39.26	D

	ATOM	2271	CD	PRO	374D	22.853	89.755	55.440	1.00	38.14	D
	ATOM	2272	CA	PRO	374D	22.058	89.287	57.665	1.00	38.21	D
	ATOM	2273	CB	PRO	374D	23.469	88.751	57.483	1.00	38.13	D
	ATOM	2274	CG	PRO	374D	23.995	89.673	56.446	1.00	37.83	D
5	ATOM	2275	C	PRO	374D	22.026	90.435	58.663	1.00	37.32	D
	ATOM	2276	O	PRO	374D	22.343	90.230	59.828	1.00	37.66	D
	ATOM	2277	N	PHE	375D	21.645	91.630	58.229	1.00	35.76	D
	ATOM	2278	CA	PHE	375D	21.647	92.768	59.139	1.00	34.69	D
	ATOM	2279	CB	PHE	375D	21.084	94.020	58.462	1.00	32.58	D
10	ATOM	2280	CG	PHE	375D	21.131	95.238	59.344	1.00	32.34	D
	ATOM	2281	CD1	PHE	375D	22.328	95.911	59.554	1.00	29.70	D
	ATOM	2282	CD2	PHE	375D	19.998	95.661	60.035	1.00	35.37	D
	ATOM	2283	CE1	PHE	375D	22.400	96.983	60.442	1.00	33.69	D
	ATOM	2284	CE2	PHE	375D	20.059	96.732	60.929	1.00	34.52	D
15	ATOM	2285	CZ	PHE	375D	21.262	97.392	61.132	1.00	33.16	D
	ATOM	2286	C	PHE	375D	20.926	92.577	60.477	1.00	34.40	D
	ATOM	2287	O	PHE	375D	19.805	92.073	60.541	1.00	32.75	D
	ATOM	2288	N	GLU	376D	21.599	92.996	61.541	1.00	34.78	D
	ATOM	2289	CA	GLU	376D	21.068	92.943	62.896	1.00	36.20	D
20	ATOM	2290	CB	GLU	376D	21.431	91.634	63.602	1.00	37.38	D
	ATOM	2291	CG	GLU	376D	20.568	90.437	63.230	1.00	39.75	D
	ATOM	2292	CD	GLU	376D	20.935	89.193	64.022	1.00	42.59	D
	ATOM	2293	OE1	GLU	376D	20.984	89.274	65.270	1.00	44.21	D
	ATOM	2294	OE2	GLU	376D	21.177	88.132	63.400	1.00	44.97	D
25	ATOM	2295	C	GLU	376D	21.708	94.105	63.624	1.00	37.49	D
	ATOM	2296	O	GLU	376D	22.921	94.125	63.823	1.00	38.70	D
	ATOM	2297	N	LEU	377D	20.884	95.071	64.011	1.00	38.78	D
	ATOM	2298	CA	LEU	377D	21.330	96.278	64.704	1.00	38.64	D
	ATOM	2299	CB	LEU	377D	20.106	97.133	65.065	1.00	39.56	D
30	ATOM	2300	CG	LEU	377D	20.281	98.419	65.890	1.00	43.61	D
	ATOM	2301	CD1	LEU	377D	20.766	99.544	65.005	1.00	42.89	D
	ATOM	2302	CD2	LEU	377D	18.950	98.811	66.515	1.00	43.68	D
	ATOM	2303	C	LEU	377D	22.168	96.042	65.965	1.00	37.07	D
	ATOM	2304	O	LEU	377D	21.795	95.267	66.838	1.00	37.43	D
35	ATOM	2305	N	THR	378D	23.301	96.728	66.049	1.00	36.15	D
	ATOM	2306	CA	THR	378D	24.173	96.654	67.217	1.00	37.08	D
	ATOM	2307	CB	THR	378D	25.444	95.813	66.957	1.00	36.22	D
	ATOM	2308	OG1	THR	378D	26.175	96.389	65.871	1.00	40.81	D
	ATOM	2309	CG2	THR	378D	25.088	94.379	66.616	1.00	35.33	D
40	ATOM	2310	C	THR	378D	24.599	98.094	67.482	1.00	36.36	D
	ATOM	2311	O	THR	378D	24.429	98.952	66.617	1.00	35.95	D
	ATOM	2312	N	ASN	379D	25.123	98.367	68.673	1.00	34.60	D
	ATOM	2313	CA	ASN	379D	25.582	99.711	68.999	1.00	34.89	D
	ATOM	2314	CB	ASN	379D	24.439	100.600	69.538	1.00	34.18	D
45	ATOM	2315	CG	ASN	379D	23.810	100.063	70.819	1.00	37.07	D
	ATOM	2316	OD1	ASN	379D	24.493	99.551	71.710	1.00	37.49	D
	ATOM	2317	ND2	ASN	379D	22.495	100.197	70.922	1.00	38.66	D
	ATOM	2318	C	ASN	379D	26.721	99.683	70.001	1.00	35.66	D
	ATOM	2319	O	ASN	379D	27.064	100.708	70.583	1.00	38.17	D
50	ATOM	2320	N	HIS	380D	27.315	98.514	70.203	1.00	36.29	D
	ATOM	2321	CA	HIS	380D	28.423	98.393	71.145	1.00	35.90	D
	ATOM	2322	CB	HIS	380D	27.875	98.272	72.573	1.00	35.84	D
	ATOM	2323	CG	HIS	380D	28.914	98.417	73.639	1.00	33.97	D
	ATOM	2324	CD2	HIS	380D	29.163	97.680	74.746	1.00	37.47	D
55	ATOM	2325	ND1	HIS	380D	29.830	99.445	73.650	1.00	36.68	D
	ATOM	2326	CE1	HIS	380D	30.602	99.335	74.716	1.00	37.18	D
	ATOM	2327	NE2	HIS	380D	30.217	98.273	75.399	1.00	36.47	D
	ATOM	2328	C	HIS	380D	29.312	97.195	70.810	1.00	35.82	D
	ATOM	2329	O	HIS	380D	28.821	96.137	70.414	1.00	37.75	D

	ATOM	2330	N	ALA	381D	30.621	97.369	70.965	1.00	35.04	D
	ATOM	2331	CA	ALA	381D	31.573	96.306	70.683	1.00	34.17	D
	ATOM	2332	CB	ALA	381D	32.586	96.781	69.648	1.00	33.51	D
	ATOM	2333	C	ALA	381D	32.286	95.863	71.963	1.00	33.72	D
5	ATOM	2334	O	ALA	381D	32.827	96.686	72.698	1.00	35.08	D
	ATOM	2335	N	VAL	382D	32.281	94.558	72.219	1.00	33.30	D
	ATOM	2336	CA	VAL	382D	32.911	93.992	73.405	1.00	34.02	D
	ATOM	2337	CB	VAL	382D	31.851	93.688	74.477	1.00	33.11	D
	ATOM	2338	CG1	VAL	382D	31.290	94.996	75.021	1.00	33.78	D
10	ATOM	2339	CG2	VAL	382D	30.728	92.850	73.874	1.00	31.36	D
	ATOM	2340	C	VAL	382D	33.694	92.714	73.095	1.00	35.93	D
	ATOM	2341	O	VAL	382D	33.662	92.213	71.972	1.00	35.98	D
	ATOM	2342	N	LEU	383D	34.383	92.182	74.102	1.00	36.17	D
	ATOM	2343	CA	LEU	383D	35.193	90.987	73.932	1.00	34.99	D
15	ATOM	2344	CB	LEU	383D	36.590	91.239	74.500	1.00	35.30	D
	ATOM	2345	CG	LEU	383D	37.686	90.204	74.219	1.00	34.59	D
	ATOM	2346	CD1	LEU	383D	38.031	90.181	72.732	1.00	31.88	D
	ATOM	2347	CD2	LEU	383D	38.920	90.559	75.036	1.00	33.70	D
	ATOM	2348	C	LEU	383D	34.617	89.722	74.564	1.00	37.15	D
20	ATOM	2349	O	LEU	383D	34.436	89.653	75.778	1.00	37.18	D
	ATOM	2350	N	LEU	384D	34.334	88.720	73.727	1.00	37.75	D
	ATOM	2351	CA	LEU	384D	33.816	87.436	74.195	1.00	37.23	D
	ATOM	2352	CB	LEU	384D	33.368	86.571	73.017	1.00	36.86	D
	ATOM	2353	CG	LEU	384D	32.137	85.682	73.186	1.00	36.02	D
25	ATOM	2354	CD1	LEU	384D	32.182	84.599	72.122	1.00	34.11	D
	ATOM	2355	CD2	LEU	384D	32.097	85.065	74.570	1.00	35.96	D
	ATOM	2356	C	LEU	384D	35.019	86.789	74.870	1.00	37.52	D
	ATOM	2357	O	LEU	384D	36.103	86.749	74.289	1.00	39.15	D
	ATOM	2358	N	VAL	385D	34.832	86.285	76.084	1.00	35.20	D
30	ATOM	2359	CA	VAL	385D	35.926	85.690	76.840	1.00	33.58	D
	ATOM	2360	CB	VAL	385D	36.247	86.589	78.076	1.00	34.43	D
	ATOM	2361	CG1	VAL	385D	36.940	85.802	79.155	1.00	37.82	D
	ATOM	2362	CG2	VAL	385D	37.122	87.750	77.645	1.00	31.81	D
	ATOM	2363	C	VAL	385D	35.684	84.242	77.285	1.00	33.08	D
35	ATOM	2364	O	VAL	385D	36.634	83.501	77.518	1.00	34.25	D
	ATOM	2365	N	GLY	386D	34.425	83.834	77.394	1.00	32.38	D
	ATOM	2366	CA	GLY	386D	34.139	82.476	77.822	1.00	32.74	D
	ATOM	2367	C	GLY	386D	32.664	82.136	77.824	1.00	34.13	D
	ATOM	2368	O	GLY	386D	31.841	82.907	77.329	1.00	35.44	D
40	ATOM	2369	N	TYR	387D	32.323	80.975	78.372	1.00	34.50	D
	ATOM	2370	CA	TYR	387D	30.927	80.553	78.440	1.00	37.00	D
	ATOM	2371	CB	TYR	387D	30.460	80.024	77.081	1.00	34.79	D
	ATOM	2372	CG	TYR	387D	31.197	78.789	76.596	1.00	38.96	D
	ATOM	2373	CD1	TYR	387D	30.871	77.515	77.078	1.00	39.29	D
45	ATOM	2374	CE1	TYR	387D	31.527	76.379	76.611	1.00	39.01	D
	ATOM	2375	CD2	TYR	387D	32.210	78.889	75.635	1.00	37.50	D
	ATOM	2376	CE2	TYR	387D	32.874	77.760	75.166	1.00	38.27	D
	ATOM	2377	CZ	TYR	387D	32.530	76.511	75.657	1.00	40.42	D
	ATOM	2378	OH	TYR	387D	33.206	75.400	75.214	1.00	42.07	D
50	ATOM	2379	C	TYR	387D	30.704	79.498	79.515	1.00	38.16	D
	ATOM	2380	O	TYR	387D	31.642	78.833	79.963	1.00	40.01	D
	ATOM	2381	N	GLY	388D	29.451	79.352	79.929	1.00	39.62	D
	ATOM	2382	CA	GLY	388D	29.119	78.381	80.950	1.00	39.94	D
	ATOM	2383	C	GLY	388D	27.629	78.131	80.990	1.00	42.99	D
55	ATOM	2384	O	GLY	388D	26.913	78.391	80.020	1.00	41.97	D
	ATOM	2385	N	LYS	389D	27.159	77.622	82.119	1.00	46.05	D
	ATOM	2386	CA	LYS	389D	25.746	77.322	82.304	1.00	48.44	D
	ATOM	2387	CB	LYS	389D	25.457	75.882	81.857	1.00	48.57	D
	ATOM	2388	CG	LYS	389D	24.060	75.386	82.191	1.00	50.12	D

	ATOM	2389	CD	LYS	389D	23.852	73.943	81.732	1.00	51.35	D
	ATOM	2390	CE	LYS	389D	23.804	73.837	80.196	1.00	52.41	D
	ATOM	2391	NZ	LYS	389D	23.410	72.472	79.719	1.00	51.63	D
	ATOM	2392	C	LYS	389D	25.430	77.483	83.786	1.00	50.08	D
5	ATOM	2393	O	LYS	389D	26.078	76.847	84.623	1.00	50.05	D
	ATOM	2394	N	ASP	390D	24.458	78.332	84.120	1.00	52.67	D
	ATOM	2395	CA	ASP	390D	24.113	78.518	85.527	1.00	57.00	D
	ATOM	2396	CB	ASP	390D	22.953	79.495	85.705	1.00	59.32	D
	ATOM	2397	CG	ASP	390D	22.750	79.895	87.173	1.00	62.88	D
10	ATOM	2398	OD1	ASP	390D	22.407	81.080	87.427	1.00	62.92	D
	ATOM	2399	OD2	ASP	390D	22.929	79.020	88.065	1.00	62.85	D
	ATOM	2400	C	ASP	390D	23.735	77.152	86.086	1.00	58.35	D
	ATOM	2401	O	ASP	390D	22.896	76.446	85.515	1.00	58.86	D
	ATOM	2402	N	PRO	391D	24.359	76.758	87.206	1.00	59.35	D
15	ATOM	2403	CD	PRO	391D	25.374	77.528	87.950	1.00	59.43	D
	ATOM	2404	CA	PRO	391D	24.104	75.463	87.848	1.00	61.35	D
	ATOM	2405	CB	PRO	391D	25.253	75.350	88.849	1.00	60.57	D
	ATOM	2406	CG	PRO	391D	25.448	76.789	89.275	1.00	60.17	D
	ATOM	2407	C	PRO	391D	22.728	75.276	88.499	1.00	62.66	D
20	ATOM	2408	O	PRO	391D	22.342	74.141	88.825	1.00	63.66	D
	ATOM	2409	N	VAL	392D	21.979	76.362	88.681	1.00	62.85	D
	ATOM	2410	CA	VAL	392D	20.665	76.235	89.298	1.00	63.40	D
	ATOM	2411	CB	VAL	392D	20.418	77.352	90.333	1.00	65.21	D
	ATOM	2412	CG1	VAL	392D	19.146	77.052	91.116	1.00	66.11	D
25	ATOM	2413	CG2	VAL	392D	21.613	77.462	91.286	1.00	64.46	D
	ATOM	2414	C	VAL	392D	19.575	76.278	88.239	1.00	63.33	D
	ATOM	2415	O	VAL	392D	18.779	75.346	88.102	1.00	65.13	D
	ATOM	2416	N	THR	393D	19.523	77.362	87.481	1.00	62.90	D
	ATOM	2417	CA	THR	393D	18.523	77.467	86.426	1.00	62.30	D
30	ATOM	2418	CB	THR	393D	18.413	78.889	85.937	1.00	63.21	D
	ATOM	2419	OG1	THR	393D	19.613	79.221	85.221	1.00	64.38	D
	ATOM	2420	CG2	THR	393D	18.242	79.841	87.132	1.00	63.53	D
	ATOM	2421	C	THR	393D	18.915	76.602	85.225	1.00	61.17	D
	ATOM	2422	O	THR	393D	18.052	76.026	84.564	1.00	62.24	D
35	ATOM	2423	N	GLY	394D	20.211	76.514	84.937	1.00	59.39	D
	ATOM	2424	CA	GLY	394D	20.660	75.721	83.800	1.00	56.42	D
	ATOM	2425	C	GLY	394D	20.739	76.580	82.547	1.00	55.12	D
	ATOM	2426	O	GLY	394D	20.808	76.069	81.423	1.00	55.56	D
	ATOM	2427	N	LEU	395D	20.739	77.896	82.761	1.00	52.18	D
40	ATOM	2428	CA	LEU	395D	20.799	78.896	81.702	1.00	48.93	D
	ATOM	2429	CB	LEU	395D	20.327	80.238	82.259	1.00	51.90	D
	ATOM	2430	CG	LEU	395D	19.013	80.811	81.730	1.00	55.53	D
	ATOM	2431	CD1	LEU	395D	18.768	82.196	82.352	1.00	54.99	D
	ATOM	2432	CD2	LEU	395D	19.077	80.897	80.192	1.00	56.10	D
45	ATOM	2433	C	LEU	395D	22.175	79.108	81.054	1.00	45.88	D
	ATOM	2434	O	LEU	395D	23.093	79.630	81.689	1.00	43.86	D
	ATOM	2435	N	ASP	396D	22.310	78.732	79.785	1.00	41.65	D
	ATOM	2436	CA	ASP	396D	23.567	78.934	79.070	1.00	40.06	D
	ATOM	2437	CB	ASP	396D	23.480	78.316	77.670	1.00	39.93	D
50	ATOM	2438	CG	ASP	396D	23.441	76.805	77.704	1.00	41.39	D
	ATOM	2439	OD1	ASP	396D	23.430	76.243	78.823	1.00	43.90	D
	ATOM	2440	OD2	ASP	396D	23.427	76.177	76.621	1.00	39.54	D
	ATOM	2441	C	ASP	396D	23.869	80.436	78.946	1.00	38.18	D
	ATOM	2442	O	ASP	396D	22.977	81.242	78.663	1.00	38.26	D
55	ATOM	2443	N	TYR	397D	25.123	80.816	79.161	1.00	36.37	D
	ATOM	2444	CA	TYR	397D	25.506	82.224	79.061	1.00	35.60	D
	ATOM	2445	CB	TYR	397D	25.509	82.886	80.443	1.00	35.29	D
	ATOM	2446	CG	TYR	397D	26.444	82.238	81.441	1.00	37.54	D
	ATOM	2447	CD1	TYR	397D	25.977	81.285	82.347	1.00	39.42	D

218

	ATOM	2448	CE1	TYR	397D	26.834	80.663	83.248	1.00	40.06	D
	ATOM	2449	CD2	TYR	397D	27.801	82.556	81.463	1.00	39.16	D
	ATOM	2450	CE2	TYR	397D	28.673	81.937	82.361	1.00	42.00	D
	ATOM	2451	CZ	TYR	397D	28.179	80.990	83.250	1.00	42.61	D
5	ATOM	2452	OH	TYR	397D	29.032	80.359	84.124	1.00	43.60	D
	ATOM	2453	C	TYR	397D	26.875	82.422	78.426	1.00	35.33	D
	ATOM	2454	O	TYR	397D	27.621	81.467	78.224	1.00	35.61	D
	ATOM	2455	N	TRP	398D	27.186	83.674	78.104	1.00	33.78	D
	ATOM	2456	CA	TRP	398D	28.478	84.035	77.535	1.00	33.69	D
10	ATOM	2457	CB	TRP	398D	28.339	84.892	76.263	1.00	32.40	D
	ATOM	2458	CG	TRP	398D	27.803	84.209	75.027	1.00	33.79	D
	ATOM	2459	CD2	TRP	398D	28.462	83.212	74.227	1.00	32.93	D
	ATOM	2460	CE2	TRP	398D	27.602	82.911	73.146	1.00	34.17	D
	ATOM	2461	CE3	TRP	398D	29.693	82.544	74.320	1.00	33.92	D
15	ATOM	2462	CD1	TRP	398D	26.609	84.459	74.413	1.00	33.56	D
	ATOM	2463	NE1	TRP	398D	26.482	83.685	73.286	1.00	34.54	D
	ATOM	2464	CZ2	TRP	398D	27.933	81.970	72.160	1.00	35.04	D
	ATOM	2465	CZ3	TRP	398D	30.024	81.605	73.338	1.00	32.81	D
	ATOM	2466	CH2	TRP	398D	29.145	81.328	72.273	1.00	34.74	D
20	ATOM	2467	C	TRP	398D	29.132	84.896	78.605	1.00	34.71	D
	ATOM	2468	O	TRP	398D	28.434	85.527	79.396	1.00	34.73	D
	ATOM	2469	N	ILE	399D	30.462	84.912	78.638	1.00	35.69	D
	ATOM	2470	CA	ILE	399D	31.197	85.742	79.584	1.00	36.37	D
	ATOM	2471	CB	ILE	399D	32.279	84.939	80.324	1.00	36.84	D
25	ATOM	2472	CG2	ILE	399D	32.997	85.835	81.329	1.00	35.99	D
	ATOM	2473	CG1	ILE	399D	31.635	83.740	81.024	1.00	35.72	D
	ATOM	2474	CD	ILE	399D	32.625	82.813	81.694	1.00	34.98	D
	ATOM	2475	C	ILE	399D	31.843	86.801	78.697	1.00	37.39	D
	ATOM	2476	O	ILE	399D	32.693	86.483	77.863	1.00	36.68	D
30	ATOM	2477	N	VAL	400D	31.426	88.054	78.870	1.00	37.66	D
	ATOM	2478	CA	VAL	400D	31.919	89.147	78.047	1.00	36.38	D
	ATOM	2479	CB	VAL	400D	30.751	89.764	77.232	1.00	35.76	D
	ATOM	2480	CG1	VAL	400D	31.286	90.700	76.169	1.00	33.36	D
	ATOM	2481	CG2	VAL	400D	29.918	88.663	76.605	1.00	31.55	D
35	ATOM	2482	C	VAL	400D	32.634	90.258	78.816	1.00	38.40	D
	ATOM	2483	O	VAL	400D	32.256	90.608	79.939	1.00	38.34	D
	ATOM	2484	N	LYS	401D	33.668	90.811	78.181	1.00	39.07	D
	ATOM	2485	CA	LYS	401D	34.478	91.883	78.753	1.00	38.53	D
	ATOM	2486	CB	LYS	401D	35.958	91.644	78.427	1.00	36.94	D
40	ATOM	2487	CG	LYS	401D	36.912	92.657	79.027	1.00	38.13	D
	ATOM	2488	CD	LYS	401D	38.342	92.422	78.552	1.00	35.72	D
	ATOM	2489	CE	LYS	401D	39.279	93.474	79.106	1.00	35.53	D
	ATOM	2490	NZ	LYS	401D	40.696	93.242	78.710	1.00	34.61	D
	ATOM	2491	C	LYS	401D	34.047	93.247	78.217	1.00	38.85	D
45	ATOM	2492	O	LYS	401D	34.193	93.532	77.020	1.00	38.30	D
	ATOM	2493	N	ASN	402D	33.515	94.085	79.108	1.00	38.02	D
	ATOM	2494	CA	ASN	402D	33.072	95.420	78.723	1.00	37.30	D
	ATOM	2495	CB	ASN	402D	31.922	95.893	79.621	1.00	36.54	D
	ATOM	2496	CG	ASN	402D	30.926	96.796	78.884	1.00	36.91	D
50	ATOM	2497	OD1	ASN	402D	31.258	97.422	77.878	1.00	37.33	D
	ATOM	2498	ND2	ASN	402D	29.702	96.871	79.399	1.00	34.90	D
	ATOM	2499	C	ASN	402D	34.244	96.394	78.837	1.00	37.54	D
	ATOM	2500	O	ASN	402D	35.328	96.031	79.298	1.00	37.86	D
	ATOM	2501	N	SER	403D	34.015	97.634	78.415	1.00	38.10	D
55	ATOM	2502	CA	SER	403D	35.034	98.676	78.459	1.00	38.42	D
	ATOM	2503	CB	SER	403D	35.484	99.025	77.033	1.00	36.80	D
	ATOM	2504	OG	SER	403D	34.381	99.335	76.201	1.00	32.67	D
	ATOM	2505	C	SER	403D	34.529	99.936	79.180	1.00	38.77	D
	ATOM	2506	O	SER	403D	34.719	101.063	78.711	1.00	39.01	D

	ATOM	2507	N	TRP	404D	33.888	99.737	80.326	1.00	39.84	D
	ATOM	2508	CA	TRP	404D	33.359	100.850	81.111	1.00	40.56	D
	ATOM	2509	CB	TRP	404D	31.826	100.803	81.159	1.00	38.71	D
	ATOM	2510	CG	TRP	404D	31.152	100.821	79.822	1.00	35.36	D
5	ATOM	2511	CD2	TRP	404D	29.812	100.413	79.540	1.00	35.42	D
	ATOM	2512	CE2	TRP	404D	29.588	100.635	78.159	1.00	35.00	D
	ATOM	2513	CE3	TRP	404D	28.771	99.882	80.321	1.00	34.80	D
	ATOM	2514	CD1	TRP	404D	31.677	101.265	78.638	1.00	35.70	D
	ATOM	2515	NE1	TRP	404D	30.742	101.155	77.635	1.00	36.18	D
10	ATOM	2516	CZ2	TRP	404D	28.366	100.343	77.538	1.00	33.90	D
	ATOM	2517	CZ3	TRP	404D	27.554	99.592	79.706	1.00	33.91	D
	ATOM	2518	CH2	TRP	404D	27.364	99.823	78.324	1.00	34.18	D
	ATOM	2519	C	TRP	404D	33.896	100.810	82.535	1.00	41.05	D
	ATOM	2520	O	TRP	404D	33.164	101.086	83.485	1.00	44.10	D
15	ATOM	2521	N	GLY	405D	35.169	100.460	82.679	1.00	41.16	D
	ATOM	2522	CA	GLY	405D	35.771	100.385	83.995	1.00	39.79	D
	ATOM	2523	C	GLY	405D	35.484	99.077	84.711	1.00	41.33	D
	ATOM	2524	O	GLY	405D	34.479	98.413	84.461	1.00	38.14	D
	ATOM	2525	N	SER	406D	36.383	98.708	85.613	1.00	43.65	D
20	ATOM	2526	CA	SER	406D	36.243	97.484	86.389	1.00	46.77	D
	ATOM	2527	CB	SER	406D	37.592	97.102	86.998	1.00	47.34	D
	ATOM	2528	OG	SER	406D	38.192	98.236	87.604	1.00	48.75	D
	ATOM	2529	C	SER	406D	35.226	97.689	87.498	1.00	48.33	D
	ATOM	2530	O	SER	406D	34.936	96.778	88.269	1.00	48.81	D
25	ATOM	2531	N	GLN	407D	34.665	98.887	87.562	1.00	50.58	D
	ATOM	2532	CA	GLN	407D	33.692	99.212	88.592	1.00	53.44	D
	ATOM	2533	CB	GLN	407D	33.830	100.701	88.929	1.00	58.12	D
	ATOM	2534	CG	GLN	407D	33.251	101.138	90.274	1.00	64.69	D
	ATOM	2535	CD	GLN	407D	33.494	102.629	90.559	1.00	68.94	D
30	ATOM	2536	OE1	GLN	407D	34.654	103.068	90.704	1.00	69.93	D
	ATOM	2537	NE2	GLN	407D	32.403	103.414	90.636	1.00	68.46	D
	ATOM	2538	C	GLN	407D	32.262	98.872	88.139	1.00	52.34	D
	ATOM	2539	O	GLN	407D	31.359	98.726	88.964	1.00	53.06	D
	ATOM	2540	N	TRP	408D	32.072	98.730	86.828	1.00	50.52	D
35	ATOM	2541	CA	TRP	408D	30.764	98.408	86.236	1.00	47.15	D
	ATOM	2542	CB	TRP	408D	30.673	99.009	84.826	1.00	47.62	D
	ATOM	2543	CG	TRP	408D	29.369	98.734	84.121	1.00	45.42	D
	ATOM	2544	CD2	TRP	408D	29.043	97.576	83.345	1.00	44.59	D
	ATOM	2545	CE2	TRP	408D	27.708	97.728	82.909	1.00	45.35	D
40	ATOM	2546	CE3	TRP	408D	29.750	96.418	82.979	1.00	43.59	D
	ATOM	2547	CD1	TRP	408D	28.255	99.520	84.124	1.00	44.59	D
	ATOM	2548	NE1	TRP	408D	27.251	98.923	83.400	1.00	44.36	D
	ATOM	2549	CZ2	TRP	408D	27.059	96.763	82.121	1.00	44.10	D
	ATOM	2550	CZ3	TRP	408D	29.104	95.457	82.197	1.00	43.37	D
45	ATOM	2551	CH2	TRP	408D	27.772	95.639	81.778	1.00	44.52	D
	ATOM	2552	C	TRP	408D	30.516	96.894	86.147	1.00	45.08	D
	ATOM	2553	O	TRP	408D	31.457	96.112	86.004	1.00	43.86	D
	ATOM	2554	N	GLY	409D	29.245	96.495	86.211	1.00	42.82	D
	ATOM	2555	CA	GLY	409D	28.889	95.085	86.142	1.00	43.46	D
50	ATOM	2556	C	GLY	409D	29.634	94.185	87.126	1.00	43.66	D
	ATOM	2557	O	GLY	409D	29.848	94.548	88.286	1.00	44.21	D
	ATOM	2558	N	GLU	410D	30.019	92.998	86.668	1.00	41.49	D
	ATOM	2559	CA	GLU	410D	30.752	92.059	87.506	1.00	40.52	D
	ATOM	2560	CB	GLU	410D	30.310	90.623	87.193	1.00	40.01	D
55	ATOM	2561	CG	GLU	410D	28.795	90.433	87.299	1.00	41.69	D
	ATOM	2562	CD	GLU	410D	28.338	88.995	87.091	1.00	43.58	D
	ATOM	2563	OE1	GLU	410D	28.813	88.344	86.139	1.00	44.12	D
	ATOM	2564	OE2	GLU	410D	27.483	88.513	87.871	1.00	46.45	D
	ATOM	2565	C	GLU	410D	32.257	92.246	87.270	1.00	40.34	D

	ATOM	2566	O	GLU	410D	32.879	91.522	86.492	1.00	39.21	D
	ATOM	2567	N	SER	411D	32.815	93.249	87.944	1.00	39.75	D
	ATOM	2568	CA	SER	411D	34.232	93.589	87.865	1.00	39.86	D
	ATOM	2569	CB	SER	411D	35.085	92.444	88.426	1.00	40.77	D
5	ATOM	2570	OG	SER	411D	34.533	91.946	89.638	1.00	40.69	D
	ATOM	2571	C	SER	411D	34.657	93.894	86.436	1.00	39.90	D
	ATOM	2572	O	SER	411D	35.724	93.479	85.998	1.00	40.37	D
	ATOM	2573	N	GLY	412D	33.815	94.621	85.714	1.00	39.58	D
	ATOM	2574	CA	GLY	412D	34.133	94.972	84.344	1.00	39.11	D
10	ATOM	2575	C	GLY	412D	33.518	94.028	83.326	1.00	38.97	D
	ATOM	2576	O	GLY	412D	33.462	94.350	82.137	1.00	38.82	D
	ATOM	2577	N	TYR	413D	33.064	92.866	83.795	1.00	37.74	D
	ATOM	2578	CA	TYR	413D	32.452	91.858	82.931	1.00	38.61	D
	ATOM	2579	CB	TYR	413D	33.056	90.464	83.176	1.00	37.31	D
15	ATOM	2580	CG	TYR	413D	34.498	90.317	82.763	1.00	39.20	D
	ATOM	2581	CD1	TYR	413D	35.527	90.811	83.567	1.00	39.62	D
	ATOM	2582	CE1	TYR	413D	36.861	90.708	83.179	1.00	40.57	D
	ATOM	2583	CD2	TYR	413D	34.837	89.711	81.551	1.00	38.25	D
	ATOM	2584	CE2	TYR	413D	36.168	89.606	81.150	1.00	40.64	D
20	ATOM	2585	CZ	TYR	413D	37.172	90.108	81.969	1.00	41.06	D
	ATOM	2586	OH	TYR	413D	38.483	90.032	81.575	1.00	39.50	D
	ATOM	2587	C	TYR	413D	30.957	91.739	83.139	1.00	38.81	D
	ATOM	2588	O	TYR	413D	30.390	92.307	84.070	1.00	40.05	D
	ATOM	2589	N	PHE	414D	30.326	90.976	82.256	1.00	39.10	D
25	ATOM	2590	CA	PHE	414D	28.903	90.725	82.352	1.00	36.68	D
	ATOM	2591	CB	PHE	414D	28.108	91.864	81.693	1.00	34.28	D
	ATOM	2592	CG	PHE	414D	28.129	91.858	80.192	1.00	33.79	D
	ATOM	2593	CD1	PHE	414D	27.181	91.140	79.474	1.00	32.09	D
	ATOM	2594	CD2	PHE	414D	29.060	92.619	79.492	1.00	34.20	D
30	ATOM	2595	CE1	PHE	414D	27.152	91.182	78.087	1.00	31.45	D
	ATOM	2596	CE2	PHE	414D	29.039	92.667	78.096	1.00	33.49	D
	ATOM	2597	CZ	PHE	414D	28.084	91.948	77.396	1.00	32.79	D
	ATOM	2598	C	PHE	414D	28.598	89.375	81.713	1.00	37.28	D
	ATOM	2599	O	PHE	414D	29.288	88.939	80.791	1.00	36.20	D
35	ATOM	2600	N	ARG	415D	27.587	88.701	82.245	1.00	38.22	D
	ATOM	2601	CA	ARG	415D	27.157	87.402	81.746	1.00	38.66	D
	ATOM	2602	CB	ARG	415D	26.773	86.482	82.909	1.00	40.09	D
	ATOM	2603	CG	ARG	415D	27.556	85.192	83.043	1.00	40.22	D
	ATOM	2604	CD	ARG	415D	28.493	85.209	84.252	1.00	41.58	D
40	ATOM	2605	NE	ARG	415D	27.830	85.673	85.469	1.00	43.62	D
	ATOM	2606	CZ	ARG	415D	26.949	84.969	86.181	1.00	44.94	D
	ATOM	2607	NH1	ARG	415D	26.609	83.737	85.819	1.00	44.20	D
	ATOM	2608	NH2	ARG	415D	26.385	85.516	87.251	1.00	45.25	D
	ATOM	2609	C	ARG	415D	25.914	87.705	80.929	1.00	38.49	D
45	ATOM	2610	O	ARG	415D	25.078	88.497	81.354	1.00	39.43	D
	ATOM	2611	N	ILE	416D	25.784	87.089	79.763	1.00	38.28	D
	ATOM	2612	CA	ILE	416D	24.614	87.322	78.932	1.00	36.26	D
	ATOM	2613	CB	ILE	416D	24.938	88.265	77.753	1.00	36.74	D
	ATOM	2614	CG2	ILE	416D	25.924	87.586	76.799	1.00	36.95	D
50	ATOM	2615	CG1	ILE	416D	23.645	88.652	77.022	1.00	35.75	D
	ATOM	2616	CD	ILE	416D	23.798	89.812	76.048	1.00	31.47	D
	ATOM	2617	C	ILE	416D	24.100	85.995	78.408	1.00	36.06	D
	ATOM	2618	O	ILE	416D	24.859	85.054	78.219	1.00	36.68	D
	ATOM	2619	N	ARG	417D	22.798	85.925	78.182	1.00	38.25	D
55	ATOM	2620	CA	ARG	417D	22.176	84.704	77.701	1.00	40.17	D
	ATOM	2621	CB	ARG	417D	20.673	84.930	77.530	1.00	44.10	D
	ATOM	2622	CG	ARG	417D	19.882	83.670	77.236	1.00	48.61	D
	ATOM	2623	CD	ARG	417D	18.387	83.917	77.402	1.00	52.98	D
	ATOM	2624	NE	ARG	417D	18.037	84.276	78.779	1.00	55.54	D

221

	ATOM	2625	CZ	ARG	417D	16.791	84.266	79.254	1.00	57.09	D
	ATOM	2626	NH1	ARG	417D	15.778	83.915	78.457	1.00	55.64	D
	ATOM	2627	NH2	ARG	417D	16.555	84.594	80.522	1.00	56.47	D
	ATOM	2628	C	ARG	417D	22.795	84.211	76.396	1.00	39.45	D
5	ATOM	2629	O	ARG	417D	23.050	84.989	75.472	1.00	37.39	D
	ATOM	2630	N	ARG	418D	23.021	82.905	76.334	1.00	38.34	D
	ATOM	2631	CA	ARG	418D	23.629	82.275	75.176	1.00	37.76	D
	ATOM	2632	CB	ARG	418D	24.891	81.532	75.618	1.00	38.54	D
	ATOM	2633	CG	ARG	418D	25.448	80.521	74.615	1.00	39.33	D
10	ATOM	2634	CD	ARG	418D	26.874	80.115	74.990	1.00	36.59	D
	ATOM	2635	NE	ARG	418D	26.940	79.398	76.257	1.00	37.34	D
	ATOM	2636	CZ	ARG	418D	26.894	78.074	76.369	1.00	37.24	D
	ATOM	2637	NH1	ARG	418D	26.780	77.312	75.284	1.00	35.31	D
	ATOM	2638	NH2	ARG	418D	26.973	77.510	77.566	1.00	34.07	D
15	ATOM	2639	C	ARG	418D	22.706	81.321	74.444	1.00	38.33	D
	ATOM	2640	O	ARG	418D	21.890	80.632	75.058	1.00	39.03	D
	ATOM	2641	N	GLY	419D	22.838	81.287	73.121	1.00	38.88	D
	ATOM	2642	CA	GLY	419D	22.034	80.384	72.317	1.00	38.85	D
	ATOM	2643	C	GLY	419D	20.759	80.959	71.740	1.00	39.20	D
20	ATOM	2644	O	GLY	419D	20.050	80.259	71.016	1.00	40.52	D
	ATOM	2645	N	THR	420D	20.461	82.220	72.047	1.00	38.50	D
	ATOM	2646	CA	THR	420D	19.247	82.859	71.541	1.00	37.34	D
	ATOM	2647	CB	THR	420D	18.226	83.113	72.685	1.00	38.23	D
	ATOM	2648	OG1	THR	420D	18.776	84.033	73.635	1.00	39.26	D
25	ATOM	2649	CG2	THR	420D	17.893	81.813	73.403	1.00	38.55	D
	ATOM	2650	C	THR	420D	19.547	84.193	70.857	1.00	37.35	D
	ATOM	2651	O	THR	420D	18.684	85.065	70.780	1.00	36.44	D
	ATOM	2652	N	ASP	421D	20.773	84.345	70.365	1.00	37.25	D
	ATOM	2653	CA	ASP	421D	21.189	85.572	69.696	1.00	37.59	D
30	ATOM	2654	CB	ASP	421D	20.658	85.588	68.259	1.00	35.28	D
	ATOM	2655	CG	ASP	421D	21.173	86.764	67.456	1.00	35.10	D
	ATOM	2656	OD1	ASP	421D	22.364	87.122	67.585	1.00	34.32	D
	ATOM	2657	OD2	ASP	421D	20.380	87.327	66.677	1.00	37.00	D
	ATOM	2658	C	ASP	421D	20.675	86.778	70.478	1.00	39.20	D
35	ATOM	2659	O	ASP	421D	20.167	87.746	69.904	1.00	40.60	D
	ATOM	2660	N	GLU	422D	20.808	86.692	71.800	1.00	38.16	D
	ATOM	2661	CA	GLU	422D	20.380	87.744	72.713	1.00	36.93	D
	ATOM	2662	CB	GLU	422D	20.840	87.393	74.131	1.00	38.17	D
	ATOM	2663	CG	GLU	422D	20.575	88.469	75.162	1.00	38.33	D
40	ATOM	2664	CD	GLU	422D	19.104	88.662	75.451	1.00	38.95	D
	ATOM	2665	OE1	GLU	422D	18.672	89.827	75.513	1.00	43.49	D
	ATOM	2666	OE2	GLU	422D	18.380	87.662	75.629	1.00	39.55	D
	ATOM	2667	C	GLU	422D	20.936	89.110	72.308	1.00	36.05	D
	ATOM	2668	O	GLU	422D	22.150	89.331	72.335	1.00	35.09	D
45	ATOM	2669	N	CYS	423D	20.043	90.027	71.943	1.00	35.10	D
	ATOM	2670	CA	CYS	423D	20.447	91.363	71.532	1.00	33.64	D
	ATOM	2671	CB	CYS	423D	21.039	92.126	72.723	1.00	36.64	D
	ATOM	2672	SG	CYS	423D	19.854	92.479	74.044	1.00	39.23	D
	ATOM	2673	C	CYS	423D	21.464	91.330	70.390	1.00	33.57	D
50	ATOM	2674	O	CYS	423D	22.368	92.158	70.336	1.00	33.36	D
	ATOM	2675	N	ALA	424D	21.309	90.364	69.489	1.00	32.90	D
	ATOM	2676	CA	ALA	424D	22.188	90.208	68.331	1.00	33.91	D
	ATOM	2677	CB	ALA	424D	22.079	91.447	67.431	1.00	31.78	D
	ATOM	2678	C	ALA	424D	23.660	89.932	68.673	1.00	33.09	D
55	ATOM	2679	O	ALA	424D	24.542	90.113	67.835	1.00	31.34	D
	ATOM	2680	N	ILE	425D	23.926	89.464	69.887	1.00	32.10	D
	ATOM	2681	CA	ILE	425D	25.303	89.211	70.278	1.00	31.92	D
	ATOM	2682	CB	ILE	425D	25.438	89.067	71.807	1.00	30.21	D
	ATOM	2683	CG2	ILE	425D	25.043	87.675	72.252	1.00	28.22	D

	ATOM	2684	CG1	ILE	425D	26.876	89.380	72.208	1.00	29.83	D
	ATOM	2685	CD	ILE	425D	27.088	89.534	73.688	1.00	33.99	D
	ATOM	2686	C	ILE	425D	25.922	88.004	69.590	1.00	32.80	D
	ATOM	2687	O	ILE	425D	27.120	87.774	69.699	1.00	33.54	D
5	ATOM	2688	N	GLU	426D	25.105	87.243	68.873	1.00	32.54	D
	ATOM	2689	CA	GLU	426D	25.585	86.070	68.148	1.00	33.10	D
	ATOM	2690	CB	GLU	426D	24.765	84.838	68.549	1.00	32.43	D
	ATOM	2691	CG	GLU	426D	25.242	84.162	69.832	1.00	32.88	D
	ATOM	2692	CD	GLU	426D	24.154	83.357	70.537	1.00	33.47	D
10	ATOM	2693	OE1	GLU	426D	23.195	82.901	69.871	1.00	31.63	D
	ATOM	2694	OE2	GLU	426D	24.271	83.174	71.766	1.00	32.49	D
	ATOM	2695	C	GLU	426D	25.480	86.306	66.639	1.00	33.04	D
	ATOM	2696	O	GLU	426D	25.462	85.363	65.855	1.00	34.57	D
	ATOM	2697	N	SER	427D	25.447	87.575	66.244	1.00	33.79	D
15	ATOM	2698	CA	SER	427D	25.307	87.961	64.841	1.00	32.57	D
	ATOM	2699	CB	SER	427D	24.296	89.108	64.727	1.00	33.62	D
	ATOM	2700	OG	SER	427D	24.838	90.310	65.260	1.00	29.81	D
	ATOM	2701	C	SER	427D	26.571	88.398	64.095	1.00	33.11	D
	ATOM	2702	O	SER	427D	26.638	88.278	62.869	1.00	31.34	D
20	ATOM	2703	N	ILE	428D	27.572	88.905	64.811	1.00	32.74	D
	ATOM	2704	CA	ILE	428D	28.750	89.397	64.122	1.00	30.96	D
	ATOM	2705	CB	ILE	428D	28.524	90.893	63.752	1.00	31.66	D
	ATOM	2706	CG2	ILE	428D	28.444	91.743	65.015	1.00	31.09	D
	ATOM	2707	CG1	ILE	428D	29.614	91.382	62.803	1.00	32.06	D
25	ATOM	2708	CD	ILE	428D	29.271	92.684	62.131	1.00	31.49	D
	ATOM	2709	C	ILE	428D	30.096	89.209	64.819	1.00	31.43	D
	ATOM	2710	O	ILE	428D	30.917	90.123	64.870	1.00	31.97	D
	ATOM	2711	N	ALA	429D	30.328	88.012	65.341	1.00	31.32	D
	ATOM	2712	CA	ALA	429D	31.597	87.710	65.992	1.00	30.95	D
30	ATOM	2713	CB	ALA	429D	31.584	86.284	66.558	1.00	25.72	D
	ATOM	2714	C	ALA	429D	32.699	87.857	64.938	1.00	31.99	D
	ATOM	2715	O	ALA	429D	32.549	87.406	63.803	1.00	30.61	D
	ATOM	2716	N	MET	430D	33.800	88.493	65.324	1.00	32.64	D
	ATOM	2717	CA	MET	430D	34.922	88.724	64.425	1.00	32.85	D
35	ATOM	2718	CB	MET	430D	34.909	90.196	63.981	1.00	31.31	D
	ATOM	2719	CG	MET	430D	36.048	90.650	63.084	1.00	30.71	D
	ATOM	2720	SD	MET	430D	37.547	91.081	63.990	1.00	32.75	D
	ATOM	2721	CE	MET	430D	38.763	91.074	62.670	1.00	31.88	D
	ATOM	2722	C	MET	430D	36.227	88.360	65.143	1.00	35.04	D
40	ATOM	2723	O	MET	430D	36.411	88.707	66.312	1.00	35.67	D
	ATOM	2724	N	ALA	431D	37.115	87.648	64.444	1.00	34.47	D
	ATOM	2725	CA	ALA	431D	38.394	87.215	65.011	1.00	34.38	D
	ATOM	2726	CB	ALA	431D	38.380	85.710	65.240	1.00	32.98	D
	ATOM	2727	C	ALA	431D	39.598	87.587	64.147	1.00	36.79	D
45	ATOM	2728	O	ALA	431D	39.503	87.728	62.918	1.00	36.33	D
	ATOM	2729	N	ALA	432D	40.739	87.735	64.804	1.00	36.95	D
	ATOM	2730	CA	ALA	432D	41.966	88.085	64.118	1.00	37.10	D
	ATOM	2731	CB	ALA	432D	42.187	89.587	64.182	1.00	37.73	D
	ATOM	2732	C	ALA	432D	43.112	87.351	64.792	1.00	37.08	D
50	ATOM	2733	O	ALA	432D	43.056	87.068	65.988	1.00	37.32	D
	ATOM	2734	N	ILE	433D	44.135	87.023	64.009	1.00	36.44	D
	ATOM	2735	CA	ILE	433D	45.307	86.330	64.519	1.00	35.47	D
	ATOM	2736	CB	ILE	433D	45.746	85.197	63.568	1.00	37.53	D
	ATOM	2737	CG2	ILE	433D	46.967	84.479	64.137	1.00	38.28	D
55	ATOM	2738	CG1	ILE	433D	44.599	84.199	63.359	1.00	37.44	D
	ATOM	2739	CD	ILE	433D	44.182	83.458	64.610	1.00	35.24	D
	ATOM	2740	C	ILE	433D	46.450	87.343	64.653	1.00	36.77	D
	ATOM	2741	O	ILE	433D	46.961	87.862	63.656	1.00	34.52	D
	ATOM	2742	N	PRO	434D	46.849	87.652	65.895	1.00	34.59	D

	ATOM	2743	CD	PRO	434D	46.270	87.193	67.170	1.00	33.72	D
	ATOM	2744	CA	PRO	434D	47.933	88.606	66.134	1.00	35.09	D
	ATOM	2745	CB	PRO	434D	47.720	88.990	67.596	1.00	34.64	D
	ATOM	2746	CG	PRO	434D	47.287	87.679	68.190	1.00	31.80	D
5	ATOM	2747	C	PRO	434D	49.318	87.986	65.907	1.00	33.42	D
	ATOM	2748	O	PRO	434D	49.503	86.789	66.092	1.00	34.39	D
	ATOM	2749	N	ILE	435D	50.280	88.805	65.491	1.00	34.08	D
	ATOM	2750	CA	ILE	435D	51.651	88.339	65.294	1.00	33.73	D
	ATOM	2751	CB	ILE	435D	52.274	88.910	63.992	1.00	30.92	D
10	ATOM	2752	CG2	ILE	435D	53.697	88.369	63.825	1.00	31.80	D
	ATOM	2753	CG1	ILE	435D	51.407	88.530	62.785	1.00	29.91	D
	ATOM	2754	CD	ILE	435D	52.063	88.757	61.435	1.00	26.33	D
	ATOM	2755	C	ILE	435D	52.426	88.866	66.503	1.00	34.07	D
	ATOM	2756	O	ILE	435D	52.581	90.069	66.665	1.00	35.50	D
15	ATOM	2757	N	PRO	436D	52.914	87.973	67.375	1.00	36.36	D
	ATOM	2758	CD	PRO	436D	52.782	86.506	67.399	1.00	36.61	D
	ATOM	2759	CA	PRO	436D	53.657	88.442	68.552	1.00	37.02	D
	ATOM	2760	CB	PRO	436D	53.955	87.150	69.317	1.00	34.52	D
	ATOM	2761	CG	PRO	436D	52.868	86.220	68.886	1.00	34.93	D
20	ATOM	2762	C	PRO	436D	54.935	89.198	68.207	1.00	39.51	D
	ATOM	2763	O	PRO	436D	55.421	89.147	67.080	1.00	39.49	D
	ATOM	2764	N	LYS	437D	55.461	89.919	69.187	1.00	43.47	D
	ATOM	2765	CA	LYS	437D	56.706	90.655	69.015	1.00	48.38	D
	ATOM	2766	CB	LYS	437D	56.942	91.534	70.248	1.00	49.11	D
25	ATOM	2767	CG	LYS	437D	58.339	92.103	70.425	1.00	49.63	D
	ATOM	2768	CD	LYS	437D	58.343	93.042	71.633	1.00	50.90	D
	ATOM	2769	CE	LYS	437D	59.726	93.593	71.958	1.00	52.33	D
	ATOM	2770	NZ	LYS	437D	60.600	92.590	72.653	1.00	55.07	D
	ATOM	2771	C	LYS	437D	57.769	89.560	68.908	1.00	50.45	D
30	ATOM	2772	O	LYS	437D	57.728	88.589	69.669	1.00	50.76	D
	ATOM	2773	N	LEU	438D	58.701	89.693	67.970	1.00	52.43	D
	ATOM	2774	CA	LEU	438D	59.731	88.666	67.806	1.00	55.22	D
	ATOM	2775	CB	LEU	438D	60.667	89.026	66.645	1.00	55.09	D
	ATOM	2776	CG	LEU	438D	61.743	87.976	66.321	1.00	54.70	D
35	ATOM	2777	CD1	LEU	438D	61.076	86.683	65.871	1.00	54.64	D
	ATOM	2778	CD2	LEU	438D	62.662	88.483	65.241	1.00	54.77	D
	ATOM	2779	C	LEU	438D	60.561	88.469	69.081	1.00	57.41	D
	ATOM	2780	OT1	LEU	438D	60.814	89.473	69.793	1.00	58.97	D
	ATOM	2781	OT	LEU	438D	60.966	87.306	69.346	1.00	59.05	D
40	ATOM	2782	CL	CL-	900D	12.011	107.107	59.001	1.00	13.29	D
	ATOM	2783	O	HOH	601D	32.897	93.992	62.912	1.00	11.76	D
	ATOM	2784	O	HOH	602D	21.127	95.546	76.056	1.00	27.60	D
	ATOM	2785	O	HOH	603D	45.800	104.509	74.128	1.00	30.94	D
	ATOM	2786	O	HOH	604D	51.362	93.933	43.700	1.00	26.34	D
45	ATOM	2787	O	HOH	605D	28.003	87.062	60.945	1.00	30.34	D
	ATOM	2788	O	HOH	606D	22.532	93.451	55.156	1.00	34.66	D
	ATOM	2789	O	HOH	607D	21.999	84.551	73.005	1.00	38.12	D
	ATOM	2790	O	HOH	608D	33.719	97.321	81.918	1.00	33.84	D
	ATOM	2791	O	HOH	609D	30.002	81.979	47.852	1.00	21.63	D
50	ATOM	2792	O	HOH	610D	46.956	92.599	53.161	1.00	26.72	D
	ATOM	2793	O	HOH	611D	47.840	85.937	42.138	1.00	29.04	D
	ATOM	2794	O	HOH	612D	27.595	79.437	59.022	1.00	28.30	D
	ATOM	2795	O	HOH	613D	30.395	86.625	62.367	1.00	33.20	D
	ATOM	2796	O	HOH	614D	29.780	87.607	52.169	1.00	26.25	D
55	ATOM	2797	O	HOH	615D	42.245	91.105	76.718	1.00	31.09	D
	ATOM	2798	O	HOH	616D	22.130	87.804	60.857	1.00	30.91	D
	ATOM	2799	O	HOH	617D	43.616	84.413	41.236	1.00	35.56	D
	ATOM	2800	O	HOH	618D	27.934	89.704	67.318	1.00	35.35	D
	ATOM	2801	O	HOH	619D	41.765	85.127	43.529	1.00	31.14	D

	ATOM	2802	O	HOH	620D	40.985	92.057	42.442	1.00	32.26	D
	ATOM	2803	O	HOH	621D	24.864	92.395	63.364	1.00	34.13	D
	ATOM	2804	O	HOH	622D	23.665	95.629	56.487	1.00	31.59	D
	ATOM	2805	O	HOH	623D	42.389	97.167	50.899	1.00	33.70	D
5	ATOM	2806	O	HOH	624D	39.469	106.168	63.651	1.00	30.60	D
	ATOM	2807	O	HOH	625D	28.547	89.237	54.011	1.00	30.56	D
	ATOM	2808	O	HOH	626D	20.474	79.008	45.880	1.00	31.95	D
	ATOM	2809	O	HOH	627D	40.967	89.504	54.605	1.00	39.26	D
	ATOM	2810	O	HOH	628D	32.740	102.397	60.167	1.00	35.97	D
10	ATOM	2811	O	HOH	629D	55.451	93.131	66.537	1.00	31.02	D
	ATOM	2812	O	HOH	630D	45.182	97.954	80.955	1.00	40.81	D
	ATOM	2813	O	HOH	631D	29.380	103.973	54.561	1.00	31.16	D
	ATOM	2814	O	HOH	632D	35.078	80.720	60.719	1.00	38.21	D
	ATOM	2815	O	HOH	633D	35.398	87.176	57.208	1.00	29.72	D
15	ATOM	2816	O	HOH	634D	44.495	98.388	75.589	1.00	35.03	D
	ATOM	2817	O	HOH	635D	43.997	94.439	54.377	1.00	34.39	D
	ATOM	2818	O	HOH	636D	53.249	92.131	65.058	1.00	38.58	D
	ATOM	2819	O	HOH	637D	33.497	88.540	86.610	1.00	30.77	D
	ATOM	2820	O	HOH	638D	34.680	78.737	64.327	1.00	31.07	D
20	ATOM	2821	O	HOH	639D	44.090	96.063	79.293	1.00	43.23	D
	ATOM	2822	O	HOH	640D	35.375	101.109	61.190	1.00	35.42	D
	ATOM	2823	O	HOH	641D	38.664	94.623	75.366	1.00	33.23	D
	ATOM	2824	O	HOH	642D	17.952	88.174	68.076	1.00	41.14	D
	ATOM	2825	O	HOH	643D	19.183	94.405	67.690	1.00	40.67	D
25	ATOM	2826	O	HOH	644D	47.233	101.443	68.235	1.00	37.37	D
	ATOM	2827	O	HOH	645D	24.648	94.969	38.968	1.00	34.54	D
	ATOM	2828	O	HOH	646D	49.178	87.846	56.053	1.00	36.72	D
	ATOM	2829	O	HOH	647D	48.629	94.829	54.086	1.00	34.47	D
	ATOM	2830	O	HOH	648D	50.138	105.841	53.583	1.00	41.70	D
30	ATOM	2831	O	HOH	649D	46.149	83.842	42.124	1.00	33.66	D
	ATOM	2832	O	HOH	650D	30.139	72.204	74.551	1.00	36.53	D
	ATOM	2833	O	HOH	651D	23.421	100.668	63.400	1.00	39.78	D
	ATOM	2834	O	HOH	652D	35.609	95.266	75.584	1.00	37.26	D
	ATOM	2835	O	HOH	653D	48.572	88.264	53.331	1.00	38.78	D
35	ATOM	2836	O	HOH	654D	33.022	103.347	38.429	1.00	40.07	D
	ATOM	2837	O	HOH	655D	32.376	104.643	80.737	1.00	37.41	D
	ATOM	2838	O	HOH	656D	24.580	104.073	59.854	1.00	40.55	D
	ATOM	2839	O	HOH	657D	40.831	81.385	40.838	1.00	33.28	D
	ATOM	2840	O	HOH	658D	43.467	98.878	82.858	1.00	39.78	D
40	ATOM	2841	O	HOH	659D	32.500	92.395	65.837	1.00	46.78	D
	ATOM	2842	O	HOH	660D	38.468	77.695	81.256	1.00	34.62	D
	ATOM	2843	O	HOH	661D	35.728	111.142	78.051	1.00	53.12	D
	ATOM	2844	O	HOH	662D	36.060	104.581	52.069	1.00	40.95	D
	ATOM	2845	O	HOH	663D	45.677	106.137	43.622	1.00	41.81	D
45	ATOM	2846	O	HOH	664D	35.298	108.185	57.740	1.00	46.20	D
	ATOM	2847	O	HOH	665D	20.493	86.102	86.143	1.00	33.92	D
	ATOM	2848	O	HOH	666D	52.338	100.561	76.768	1.00	41.07	D
	ATOM	2849	O	HOH	667D	42.925	86.024	46.214	1.00	37.16	D
	ATOM	2850	O	HOH	668D	27.536	99.105	66.224	1.00	38.03	D
50	ATOM	2851	O	HOH	669D	25.311	102.128	61.774	1.00	38.34	D
	ATOM	2852	O	HOH	670D	42.936	82.243	39.634	1.00	35.87	D
	ATOM	2853	O	HOH	671D	29.331	76.926	83.825	1.00	43.36	D
	ATOM	2854	O	HOH	672D	54.651	100.047	70.575	1.00	42.68	D
	ATOM	2855	O	HOH	673D	22.764	77.258	74.236	1.00	38.83	D
55	ATOM	2856	O	HOH	674D	47.648	83.631	85.971	1.00	41.77	D
	ATOM	2857	O	HOH	675D	30.435	110.017	61.229	1.00	43.70	D
	ATOM	2858	O	HOH	676D	38.280	96.585	78.557	1.00	33.95	D
	ATOM	2859	O	HOH	677D	37.940	107.601	56.260	1.00	40.46	D
	ATOM	2860	O	HOH	678D	20.252	91.797	45.147	1.00	39.04	D

	ATOM	2861	O	HOH	679D	40.639	91.045	82.664	1.00	40.27	D
	ATOM	2862	O	HOH	680D	30.775	94.839	64.879	1.00	41.94	D
	ATOM	2863	O	HOH	681D	55.210	91.625	77.247	1.00	41.79	D
	ATOM	2864	O	HOH	682D	52.751	97.307	76.959	1.00	39.25	D
5	ATOM	2865	O	HOH	683D	48.838	78.803	75.659	1.00	45.38	D
	ATOM	2866	O	HOH	684D	56.973	98.691	53.653	1.00	17.09	D
	ATOM	2867	O	HOH	685D	40.103	95.473	76.973	1.00	6.14	D
	ATOM	2868	O	HOH	686D	47.725	87.696	85.276	1.00	5.92	D
	ATOM	2869	O	HOH	687D	48.233	91.829	79.365	1.00	5.60	D
10	ATOM	2870	O	HOH	688D	23.119	104.299	44.896	1.00	5.15	D
	ATOM	2871	O	HOH	689D	42.682	116.422	72.534	1.00	5.05	D
	ATOM	2872	O	HOH	690D	50.839	90.847	83.358	1.00	5.02	D
	ATOM	2873	O	HOH	691D	22.318	76.125	71.499	1.00	4.91	D
	ATOM	2874	O	HOH	692D	58.725	100.636	70.745	1.00	4.77	D
15	ATOM	2875	O	HOH	693D	20.571	103.141	48.214	1.00	4.73	D
	ATOM	2876	O	HOH	694D	49.640	72.732	81.567	1.00	4.73	D
	ATOM	2877	O	HOH	695D	58.092	91.970	66.332	1.00	4.65	D
	ATOM	2878	O	HOH	696D	45.839	83.690	45.022	1.00	4.64	D
	ATOM	2879	O	HOH	697D	23.702	101.314	65.767	1.00	4.63	D
20	ATOM	2880	O	HOH	698D	32.952	108.948	46.005	1.00	4.58	D
	ATOM	2881	O	HOH	699D	42.041	75.156	63.124	1.00	4.55	D
	ATOM	2882	O	HOH	700D	35.586	77.473	82.730	1.00	4.54	D
	ATOM	2883	O	HOH	701D	36.020	80.124	63.795	1.00	4.52	D
	ATOM	2884	O	HOH	702D	43.952	68.753	81.003	1.00	4.49	D
25	ATOM	2885	O	HOH	703D	54.898	99.443	50.305	1.00	4.48	D
	ATOM	2886	O	HOH	704D	47.223	110.864	74.487	1.00	4.47	D
	ATOM	2887	O	HOH	705D	45.690	111.923	73.684	1.00	4.44	D
	ATOM	2888	O	HOH	706D	49.975	105.824	64.085	1.00	4.43	D
	ATOM	2889	O	HOH	707D	18.708	89.460	59.425	1.00	4.40	D
30	ATOM	2890	O	HOH	708D	26.381	85.454	38.395	1.00	4.40	D
	ATOM	2891	O	HOH	709D	30.779	101.372	66.511	1.00	4.38	D
	ATOM	2892	O	HOH	710D	36.792	84.273	56.010	1.00	4.35	D
	ATOM	2893	O	HOH	711D	28.519	73.235	70.734	1.00	4.35	D
	ATOM	2894	O	HOH	712D	58.333	103.051	46.373	1.00	4.35	D
35	ATOM	2895	O	HOH	713D	27.360	92.074	34.667	1.00	4.29	D
	ATOM	2896	O	HOH	714D	43.953	107.166	53.564	1.00	4.24	D
	ATOM	2897	O	HOH	715D	42.261	88.154	55.975	1.00	4.24	D
	ATOM	2898	O	HOH	716D	36.267	83.017	41.761	1.00	4.23	D
	ATOM	2899	O	HOH	717D	46.972	81.215	41.571	1.00	4.22	D
40	ATOM	2900	O	HOH	718D	46.508	108.320	45.434	1.00	4.22	D
	ATOM	2901	O	HOH	719D	39.057	86.764	55.924	1.00	4.22	D
	ATOM	2902	O	HOH	720D	21.205	101.182	61.884	1.00	4.21	D
	ATOM	2903	O	HOH	721D	54.954	92.234	72.946	1.00	4.19	D
	ATOM	2904	O	HOH	722D	41.797	89.814	35.952	1.00	4.18	D
45	ATOM	2905	O	HOH	723D	36.395	64.363	70.114	1.00	4.18	D
	ATOM	2906	O	HOH	724D	26.074	94.663	91.708	1.00	4.15	D
	ATOM	2907	O	HOH	725D	56.452	98.410	43.556	1.00	4.14	D
	ATOM	2908	O	HOH	726D	14.114	84.521	67.656	1.00	4.12	D
	ATOM	2909	O	HOH	727D	39.848	70.089	73.099	1.00	4.11	D
50	ATOM	2910	O	HOH	728D	57.004	80.696	78.133	1.00	4.11	D
	ATOM	2911	O	HOH	729D	40.216	84.346	54.741	1.00	4.10	D
	ATOM	2912	O	HOH	730D	33.690	101.196	86.288	1.00	4.10	D
	ATOM	2913	O	HOH	731D	39.602	108.920	39.341	1.00	4.10	D
	ATOM	2914	O	HOH	732D	34.580	76.645	62.441	1.00	4.10	D
55	ATOM	2915	O	HOH	733D	44.966	84.326	84.304	1.00	4.10	D
	ATOM	2916	O	HOH	734D	39.511	111.068	66.034	1.00	4.09	D
	ATOM	2917	O	HOH	735D	40.144	78.133	41.652	1.00	4.08	D
	ATOM	2918	O	HOH	736D	22.015	119.452	50.797	1.00	4.07	D
	ATOM	2919	O	HOH	737D	29.024	79.907	57.101	1.00	4.06	D

[illegible]

Table 2b

Data set for human DPPI structural co-ordinates

5	ATOM	1	N	ASP	A	1	34.829	25.677	23.635	1.00	13.23	PRO
	ATOM	2	CA	ASP	A	1	35.982	26.274	22.904	1.00	15.76	PRO
	ATOM	3	C	ASP	A	1	36.901	26.944	23.925	1.00	15.95	PRO
	ATOM	4	O	ASP	A	1	36.461	27.294	25.023	1.00	18.60	PRO
	ATOM	5	CB	ASP	A	1	35.487	27.349	21.930	1.00	12.47	PRO
	ATOM	6	CG	ASP	A	1	34.378	26.865	21.012	1.00	14.92	PRO
10	ATOM	7	OD1	ASP	A	1	33.562	25.999	21.404	1.00	12.65	PRO
	ATOM	8	OD2	ASP	A	1	34.308	27.387	19.882	1.00	19.49	PRO
	ATOM	12	N	THR	A	2	38.180	27.085	23.586	1.00	15.84	PRO
	ATOM	13	CA	THR	A	2	39.124	27.793	24.440	1.00	14.40	PRO
	ATOM	15	C	THR	A	2	39.105	29.164	23.778	1.00	18.05	PRO
15	ATOM	16	O	THR	A	2	38.524	29.324	22.700	1.00	15.80	PRO
	ATOM	17	CB	THR	A	2	40.563	27.254	24.312	1.00	14.26	PRO
	ATOM	18	OG1	THR	A	2	40.983	27.328	22.944	1.00	17.21	PRO
	ATOM	20	CG2	THR	A	2	40.656	25.828	24.795	1.00	12.46	PRO
	ATOM	21	N	PRO	A	3	39.785	30.157	24.365	1.00	18.48	PRO
20	ATOM	22	CA	PRO	A	3	39.786	31.485	23.739	1.00	19.63	PRO
	ATOM	23	CD	PRO	A	3	40.164	30.260	25.779	1.00	18.17	PRO
	ATOM	24	C	PRO	A	3	40.665	31.575	22.482	1.00	19.26	PRO
	ATOM	25	O	PRO	A	3	40.763	32.639	21.866	1.00	18.48	PRO
	ATOM	26	CB	PRO	A	3	40.360	32.368	24.846	1.00	18.81	PRO
25	ATOM	27	CG	PRO	A	3	39.893	31.704	26.066	1.00	19.08	PRO
	ATOM	28	N	ALA	A	4	41.290	30.462	22.094	1.00	21.52	PRO
	ATOM	29	CA	ALA	A	4	42.196	30.442	20.938	1.00	22.01	PRO
	ATOM	31	C	ALA	A	4	41.516	30.484	19.558	1.00	23.20	PRO
	ATOM	32	O	ALA	A	4	40.512	29.804	19.319	1.00	19.36	PRO
30	ATOM	33	CB	ALA	A	4	43.139	29.237	21.033	1.00	19.72	PRO
	ATOM	34	N	ASNGA	A	5	42.058	31.314	18.667	1.00	24.44	PRO
	ATOM	35	CA	ASNGA	A	5	41.542	31.445	17.305	1.00	24.12	PRO
	ATOM	36	C	ASNGA	A	5	42.745	31.326	16.376	1.00	23.25	PRO
	ATOM	37	O	ASNGA	A	5	43.145	32.297	15.729	1.00	25.22	PRO
35	ATOM	38	CB	ASNGA	A	5	40.837	32.801	17.096	1.00	27.43	PRO
	ATOM	39	CG	ASNGA	A	5	40.010	32.839	15.813	1.00	30.19	PRO
	ATOM	40	OD1	ASNGA	A	5	39.988	31.869	15.058	1.00	26.50	PRO
	ATOM	41	ND2	ASNGA	A	5	39.310	33.939	15.565	1.00	36.16	PRO
	ATOM	44	N	CYS	A	6	43.345	30.140	16.344	1.00	20.27	PRO
40	ATOM	45	CA	CYS	A	6	44.526	29.904	15.515	1.00	17.32	PRO
	ATOM	47	C	CYS	A	6	44.203	29.368	14.117	1.00	17.02	PRO
	ATOM	48	O	CYS	A	6	43.139	28.805	13.880	1.00	15.73	PRO
	ATOM	49	CB	CYS	A	6	45.485	28.977	16.247	1.00	18.75	PRO
	ATOM	50	SG	CYS	A	6	45.990	29.653	17.869	1.00	17.78	PRO
45	ATOM	51	N	THR	A	7	45.129	29.550	13.188	1.00	15.70	PRO
	ATOM	52	CA	THR	A	7	44.891	29.109	11.827	1.00	16.36	PRO
	ATOM	54	C	THR	A	7	45.731	27.917	11.395	1.00	16.03	PRO
	ATOM	55	O	THR	A	7	46.766	27.594	11.981	1.00	14.58	PRO
	ATOM	56	CB	THR	A	7	45.165	30.236	10.807	1.00	17.09	PRO
50	ATOM	57	OG1	THR	A	7	46.577	30.463	10.733	1.00	16.23	PRO
	ATOM	59	CG2	THR	A	7	44.455	31.513	11.177	1.00	14.68	PRO
	ATOM	60	N	TYR	A	8	45.297	27.324	10.294	1.00	13.51	PRO
	ATOM	61	CA	TYR	A	8	45.965	26.207	9.669	1.00	12.95	PRO
	ATOM	63	C	TYR	A	8	47.409	26.597	9.341	1.00	14.16	PRO
55	ATOM	64	O	TYR	A	8	48.331	25.805	9.526	1.00	11.35	PRO
	ATOM	65	CB	TYR	A	8	45.214	25.882	8.383	1.00	15.31	PRO
	ATOM	66	CG	TYR	A	8	45.850	24.824	7.533	1.00	15.25	PRO
	ATOM	67	CD1	TYR	A	8	45.639	23.477	7.806	1.00	16.05	PRO
	ATOM	68	CE1	TYR	A	8	46.239	22.496	7.046	1.00	15.90	PRO
60	ATOM	69	CZ	TYR	A	8	47.064	22.861	5.995	1.00	16.54	PRO
	ATOM	70	OH	TYR	A	8	47.682	21.886	5.281	1.00	14.74	PRO
	ATOM	72	CE2	TYR	A	8	47.289	24.189	5.691	1.00	15.26	PRO
	ATOM	73	CD2	TYR	A	8	46.681	25.167	6.462	1.00	15.66	PRO
	ATOM	74	N	LEU	A	9	47.611	27.816	8.848	1.00	17.36	PRO
65	ATOM	75	CA	LEU	A	9	48.964	28.254	8.516	1.00	21.52	PRO
	ATOM	77	C	LEU	A	9	49.827	28.352	9.780	1.00	16.82	PRO
	ATOM	78	O	LEU	A	9	51.005	28.034	9.735	1.00	16.78	PRO
	ATOM	79	CB	LEU	A	9	48.958	29.573	7.734	1.00	25.50	PRO
	ATOM	80	CG	LEU	A	9	50.220	29.713	6.881	1.00	33.81	PRO

	ATOM	81	CD1	LEU	A	9	49.841	30.260	5.530	1.00	37.18	PRO
	ATOM	82	CD2	LEU	A	9	51.284	30.575	7.570	1.00	41.26	PRO
	ATOM	83	N	ASP	A	10	49.235	28.753	10.907	1.00	16.38	PRO
5	ATOM	84	CA	ASP	A	10	49.980	28.827	12.167	1.00	14.62	PRO
	ATOM	86	C	ASP	A	10	50.534	27.454	12.512	1.00	11.35	PRO
	ATOM	87	O	ASP	A	10	51.595	27.349	13.118	1.00	10.61	PRO
	ATOM	88	CB	ASP	A	10	49.081	29.263	13.328	1.00	16.85	PRO
	ATOM	89	CG	ASP	A	10	48.751	30.732	13.303	1.00	16.59	PRO
10	ATOM	90	OD1	ASP	A	10	47.641	31.084	13.741	1.00	18.33	PRO
	ATOM	91	OD2	ASP	A	10	49.595	31.539	12.877	1.00	19.58	PRO
	ATOM	92	N	LEU	A	11	49.793	26.415	12.119	1.00	13.78	PRO
	ATOM	93	CA	LEU	A	11	50.143	25.017	12.380	1.00	12.32	PRO
	ATOM	95	C	LEU	A	11	51.199	24.412	11.437	1.00	15.56	PRO
15	ATOM	96	O	LEU	A	11	51.941	23.507	11.831	1.00	15.87	PRO
	ATOM	97	CB	LEU	A	11	48.872	24.173	12.356	1.00	11.04	PRO
	ATOM	98	CG	LEU	A	11	48.971	22.700	12.706	1.00	10.59	PRO
	ATOM	99	CD1	LEU	A	11	49.494	22.555	14.128	1.00	10.92	PRO
	ATOM	100	CD2	LEU	A	11	47.591	22.080	12.569	1.00	9.48	PRO
20	ATOM	101	N	LEU	A	12	51.271	24.893	10.197	1.00	14.04	PRO
	ATOM	102	CA	LEU	A	12	52.258	24.369	9.254	1.00	11.89	PRO
	ATOM	104	C	LEU	A	12	53.658	24.766	9.697	1.00	12.71	PRO
	ATOM	105	O	LEU	A	12	53.889	25.911	10.091	1.00	14.63	PRO
	ATOM	106	CB	LEU	A	12	51.998	24.917	7.845	1.00	12.44	PRO
25	ATOM	107	CG	LEU	A	12	50.702	24.506	7.143	1.00	10.77	PRO
	ATOM	108	CD1	LEU	A	12	50.620	25.188	5.786	1.00	11.13	PRO
	ATOM	109	CD2	LEU	A	12	50.669	23.006	6.987	1.00	10.24	PRO
	ATOM	110	N	GLY	A	13	54.581	23.814	9.669	1.00	12.17	PRO
	ATOM	111	CA	GLY	A	13	55.950	24.111	10.057	1.00	13.71	PRO
30	ATOM	113	C	GLY	A	13	56.609	23.056	10.926	1.00	15.45	PRO
	ATOM	114	O	GLY	A	13	56.190	21.903	10.957	1.00	14.79	PRO
	ATOM	115	N	THR	A	14	57.649	23.455	11.645	1.00	15.66	PRO
	ATOM	116	CA	THR	A	14	58.355	22.535	12.514	1.00	16.52	PRO
	ATOM	118	C	THR	A	14	57.965	22.778	13.956	1.00	16.47	PRO
35	ATOM	119	O	THR	A	14	57.952	23.918	14.416	1.00	19.00	PRO
	ATOM	120	CB	THR	A	14	59.856	22.704	12.372	1.00	17.56	PRO
	ATOM	121	OG1	THR	A	14	60.206	22.555	10.990	1.00	19.92	PRO
	ATOM	123	CG2	THR	A	14	60.595	21.653	13.210	1.00	16.58	PRO
	ATOM	124	N	TRP	A	15	57.630	21.703	14.657	1.00	15.43	PRO
40	ATOM	125	CA	TRP	A	15	57.235	21.773	16.060	1.00	13.73	PRO
	ATOM	127	C	TRP	A	15	58.163	20.908	16.885	1.00	14.36	PRO
	ATOM	128	O	TRP	A	15	58.611	19.866	16.424	1.00	14.46	PRO
	ATOM	129	CB	TRP	A	15	55.811	21.244	16.247	1.00	11.99	PRO
	ATOM	130	CG	TRP	A	15	54.757	22.175	15.762	1.00	14.67	PRO
45	ATOM	131	CD1	TRP	A	15	54.323	22.320	14.477	1.00	12.82	PRO
	ATOM	132	NE1	TRP	A	15	53.368	23.301	14.414	1.00	14.13	PRO
	ATOM	133	CE2	TRP	A	15	53.160	23.810	15.667	1.00	15.03	PRO
	ATOM	134	CD2	TRP	A	15	54.020	23.120	16.547	1.00	14.36	PRO
	ATOM	136	CE3	TRP	A	15	54.006	23.456	17.911	1.00	15.03	PRO
50	ATOM	137	CZ3	TRP	A	15	53.146	24.462	18.341	1.00	12.70	PRO
	ATOM	138	CH2	TRP	A	15	52.303	25.131	17.438	1.00	14.08	PRO
	ATOM	139	CZ2	TRP	A	15	52.293	24.821	16.102	1.00	14.85	PRO
	ATOM	140	N	VAL	A	16	58.494	21.367	18.084	1.00	14.34	PRO
	ATOM	141	CA	VAL	A	16	59.315	20.578	18.994	1.00	13.97	PRO
55	ATOM	143	C	VAL	A	16	58.391	20.235	20.167	1.00	9.69	PRO
	ATOM	144	O	VAL	A	16	57.797	21.114	20.788	1.00	11.00	PRO
	ATOM	145	CB	VAL	A	16	60.561	21.356	19.508	1.00	16.11	PRO
	ATOM	146	CG1	VAL	A	16	61.252	20.571	20.610	1.00	17.29	PRO
	ATOM	147	CG2	VAL	A	16	61.541	21.578	18.389	1.00	15.32	PRO
60	ATOM	148	N	PHE	A	17	58.208	18.949	20.405	1.00	9.23	PRO
	ATOM	149	CA	PHE	A	17	57.362	18.480	21.485	1.00	9.92	PRO
	ATOM	151	C	PHE	A	17	58.248	17.961	22.639	1.00	14.51	PRO
	ATOM	152	O	PHE	A	17	59.089	17.087	22.429	1.00	14.62	PRO
	ATOM	153	CB	PHE	A	17	56.437	17.355	20.977	1.00	5.00	PRO
65	ATOM	154	CG	PHE	A	17	55.424	17.795	19.916	1.00	5.00	PRO
	ATOM	155	CD1	PHE	A	17	54.936	19.092	19.881	1.00	5.26	PRO
	ATOM	156	CE1	PHE	A	17	53.974	19.477	18.961	1.00	7.22	PRO
	ATOM	157	CZ	PHE	A	17	53.482	18.560	18.051	1.00	6.70	PRO
	ATOM	158	CE2	PHE	A	17	53.959	17.257	18.062	1.00	7.08	PRO
70	ATOM	159	CD2	PHE	A	17	54.927	16.881	18.994	1.00	5.79	PRO
	ATOM	160	N	GLN	A	18	58.111	18.545	23.830	1.00	14.71	PRO
	ATOM	161	CA	GLN	A	18	58.880	18.091	25.000	1.00	13.28	PRO
	ATOM	163	C	GLN	A	18	57.892	17.224	25.746	1.00	11.96	PRO
	ATOM	164	O	GLN	A	18	56.796	17.673	26.103	1.00	11.20	PRO
	ATOM	165	CB	GLN	A	18	59.353	19.269	25.852	1.00	13.82	PRO

	ATOM	166	CG	GLN	A	18	60.319	20.215	25.124	1.00	15.34	PRO
	ATOM	167	CD	GLN	A	18	61.740	19.667	25.053	1.00	16.99	PRO
	ATOM	168	OE1	GLN	A	18	62.095	18.721	25.759	1.00	17.72	PRO
	ATOM	169	NE2	GLN	A	18	62.549	20.245	24.184	1.00	16.18	PRO
5	ATOM	172	N	VAL	A	19	58.281	15.972	25.939	1.00	13.61	PRO
	ATOM	173	CA	VAL	A	19	57.436	14.943	26.518	1.00	14.66	PRO
	ATOM	175	C	VAL	A	19	57.836	14.556	27.927	1.00	18.14	PRO
	ATOM	176	O	VAL	A	19	58.982	14.222	28.184	1.00	16.77	PRO
10	ATOM	177	CB	VAL	A	19	57.481	13.686	25.599	1.00	13.30	PRO
	ATOM	178	CG1	VAL	A	19	56.550	12.589	26.103	1.00	11.14	PRO
	ATOM	179	CG2	VAL	A	19	57.114	14.090	24.168	1.00	12.43	PRO
	ATOM	180	N	GLY	A	20	56.884	14.605	28.843	1.00	20.10	PRO
	ATOM	181	CA	GLY	A	20	57.184	14.227	30.206	1.00	27.45	PRO
	ATOM	183	C	GLY	A	20	56.648	12.837	30.396	1.00	32.90	PRO
15	ATOM	184	O	GLY	A	20	56.829	11.989	29.520	1.00	34.50	PRO
	ATOM	185	N	SER	A	21	56.056	12.609	31.567	1.00	35.61	PRO
	ATOM	186	CA	SER	A	21	55.379	11.366	31.952	1.00	36.25	PRO
	ATOM	188	C	SER	A	21	55.743	10.057	31.220	1.00	35.09	PRO
	ATOM	189	O	SER	A	21	56.886	9.871	30.819	1.00	38.61	PRO
20	ATOM	190	CB	SER	A	21	53.876	11.633	31.868	1.00	37.06	PRO
	ATOM	191	OG	SER	A	21	53.539	12.827	32.572	1.00	36.02	PRO
	ATOM	193	N	SER	A	22	54.789	9.125	31.184	1.00	36.82	PRO
	ATOM	194	CA	SER	A	22	54.879	7.811	30.509	1.00	38.36	PRO
	ATOM	196	C	SER	A	22	54.141	6.691	31.233	1.00	38.44	PRO
25	ATOM	197	O	SER	A	22	54.725	5.652	31.539	1.00	40.56	PRO
	ATOM	198	CB	SER	A	22	56.305	7.345	30.252	1.00	39.27	PRO
	ATOM	199	OG	SER	A	22	56.271	6.124	29.527	1.00	39.12	PRO
	ATOM	201	N	GLY	A	23	52.851	6.886	31.472	1.00	38.80	PRO
	ATOM	202	CA	GLY	A	23	52.081	5.870	32.162	1.00	40.83	PRO
30	ATOM	204	C	GLY	A	23	50.850	5.446	31.395	1.00	41.74	PRO
	ATOM	205	O	GLY	A	23	50.852	5.395	30.177	1.00	38.22	PRO
	ATOM	206	N	SER	A	24	49.803	5.097	32.121	1.00	44.91	PRO
	ATOM	207	CA	SER	A	24	48.554	4.692	31.505	1.00	47.64	PRO
	ATOM	209	C	SER	A	24	47.620	5.903	31.473	1.00	49.78	PRO
35	ATOM	210	O	SER	A	24	47.996	6.980	31.939	1.00	49.95	PRO
	ATOM	211	CB	SER	A	24	47.947	3.537	32.305	1.00	48.89	PRO
	ATOM	212	OG	SER	A	24	48.887	2.480	32.451	1.00	50.21	PRO
	ATOM	214	N	GLN	A	25	46.420	5.735	30.917	1.00	52.60	PRO
	ATOM	215	CA	GLN	A	25	45.433	6.822	30.835	1.00	56.55	PRO
40	ATOM	217	C	GLN	A	25	44.928	7.278	32.219	1.00	59.25	PRO
	ATOM	218	O	GLN	A	25	44.305	8.342	32.349	1.00	60.31	PRO
	ATOM	219	CB	GLN	A	25	44.237	6.404	29.953	1.00	55.93	PRO
	ATOM	220	CG	GLN	A	25	43.480	5.159	30.426	1.00	58.48	PRO
	ATOM	221	CD	GLN	A	25	42.179	4.902	29.666	1.00	59.12	PRO
45	ATOM	222	OE1	GLN	A	25	41.112	5.364	30.066	1.00	58.82	PRO
	ATOM	223	NE2	GLN	A	25	42.263	4.129	28.584	1.00	60.49	PRO
	ATOM	226	N	ARG	A	26	45.227	6.467	33.238	1.00	59.64	PRO
	ATOM	227	CA	ARG	A	26	44.816	6.691	34.627	1.00	59.35	PRO
	ATOM	229	C	ARG	A	26	46.019	7.136	35.446	1.00	59.70	PRO
50	ATOM	230	O	ARG	A	26	45.873	7.794	36.476	1.00	61.62	PRO
	ATOM	231	CB	ARG	A	26	44.244	5.383	35.192	1.00	58.79	PRO
	ATOM	232	CG	ARG	A	26	43.827	5.389	36.652	0.00	31.62	PRO
	ATOM	233	CD	ARG	A	26	43.229	4.034	37.017	0.00	20.84	PRO
	ATOM	234	NE	ARG	A	26	43.657	3.557	38.331	0.00	35.67	PRO
55	ATOM	235	CZ	ARG	A	26	42.829	3.333	39.347	0.00	27.11	PRO
	ATOM	236	NH1	ARG	A	26	41.526	3.544	39.202	0.00	25.57	PRO
	ATOM	237	NH2	ARG	A	26	43.300	2.890	40.506	0.00	35.67	PRO
	ATOM	243	N	ASP	A	27	47.207	6.760	34.977	1.00	59.04	PRO
	ATOM	244	CA	ASP	A	27	48.468	7.112	35.631	1.00	59.16	PRO
60	ATOM	246	C	ASP	A	27	48.832	8.563	35.359	1.00	59.21	PRO
	ATOM	247	O	ASP	A	27	49.574	9.185	36.121	1.00	60.44	PRO
	ATOM	248	CB	ASP	A	27	49.602	6.245	35.090	1.00	59.33	PRO
	ATOM	249	CG	ASP	A	27	50.010	5.149	36.042	0.00	-0.85	PRO
	ATOM	250	OD1	ASP	A	27	51.139	5.226	36.568	0.00	18.12	PRO
65	ATOM	251	OD2	ASP	A	27	49.218	4.206	36.249	0.00	14.88	PRO
	ATOM	252	N	VAL	A	28	48.321	9.091	34.254	1.00	59.18	PRO
	ATOM	253	CA	VAL	A	28	48.629	10.449	33.856	1.00	57.05	PRO
	ATOM	255	C	VAL	A	28	47.394	11.286	33.641	1.00	56.96	PRO
	ATOM	256	O	VAL	A	28	46.291	10.772	33.449	1.00	60.31	PRO
70	ATOM	257	CB	VAL	A	28	49.477	10.461	32.551	1.00	56.03	PRO
	ATOM	258	CG1	VAL	A	28	48.613	10.715	31.317	1.00	55.18	PRO
	ATOM	259	CG2	VAL	A	28	50.548	11.496	32.652	1.00	57.07	PRO
	ATOM	260	N	ASN	A	29	47.597	12.590	33.715	1.00	55.90	PRO
	ATOM	261	CA	ASN	A	29	46.553	13.563	33.451	1.00	55.98	PRO

	ATOM	263	C	ASN	A	29	47.324	14.841	33.192	1.00	52.27	PRO
	ATOM	264	O	ASN	A	29	48.019	15.371	34.066	1.00	53.84	PRO
	ATOM	265	CB	ASN	A	29	45.576	13.721	34.612	1.00	58.70	PRO
5	ATOM	266	CG	ASN	A	29	44.353	14.532	34.227	0.00	60.23	PRO
	ATOM	267	OD1	ASN	A	29	43.365	13.988	33.736	0.00	59.55	PRO
	ATOM	268	ND2	ASN	A	29	44.406	15.838	34.463	0.00	52.56	PRO
	ATOM	271	N	CYS	A	30	47.268	15.257	31.939	1.00	47.05	PRO
	ATOM	272	CA	CYS	A	30	47.980	16.414	31.463	1.00	42.21	PRO
10	ATOM	274	C	CYS	A	30	47.234	17.729	31.639	1.00	46.15	PRO
	ATOM	275	O	CYS	A	30	46.812	18.367	30.675	1.00	47.57	PRO
	ATOM	276	CB	CYS	A	30	48.355	16.128	30.025	1.00	34.23	PRO
	ATOM	277	SG	CYS	A	30	48.879	14.385	29.939	1.00	24.15	PRO
	ATOM	278	N	SER	A	31	47.078	18.121	32.899	1.00	46.88	PRO
	ATOM	279	CA	SER	A	31	46.418	19.369	33.248	1.00	47.66	PRO
15	ATOM	281	C	SER	A	31	47.458	20.432	33.623	1.00	47.43	PRO
	ATOM	282	O	SER	A	31	47.169	21.631	33.569	1.00	50.04	PRO
	ATOM	283	CB	SER	A	31	45.407	19.152	34.394	1.00	47.51	PRO
	ATOM	284	OG	SER	A	31	45.913	18.306	35.418	1.00	49.20	PRO
	ATOM	286	N	VAL	A	32	48.685	19.988	33.920	1.00	45.86	PRO
20	ATOM	287	CA	VAL	A	32	49.783	20.881	34.334	1.00	45.56	PRO
	ATOM	289	C	VAL	A	32	51.072	20.834	33.483	1.00	42.13	PRO
	ATOM	290	O	VAL	A	32	51.544	21.870	33.003	1.00	44.34	PRO
	ATOM	291	CB	VAL	A	32	50.162	20.633	35.832	1.00	45.78	PRO
	ATOM	292	CG1	VAL	A	32	49.208	21.386	36.733	1.00	46.02	PRO
25	ATOM	293	CG2	VAL	A	32	50.133	19.135	36.169	1.00	44.21	PRO
	ATOM	294	N	MET	A	33	51.652	19.636	33.408	1.00	36.58	PRO
	ATOM	295	CA	MET	A	33	52.872	19.256	32.676	1.00	33.58	PRO
	ATOM	297	C	MET	A	33	53.934	18.688	33.619	1.00	32.64	PRO
	ATOM	298	O	MET	A	33	53.922	17.483	33.901	1.00	33.69	PRO
30	ATOM	299	CB	MET	A	33	53.451	20.358	31.769	1.00	29.72	PRO
	ATOM	300	CG	MET	A	33	54.688	19.910	30.948	1.00	28.08	PRO
	ATOM	301	SD	MET	A	33	54.515	18.405	29.888	1.00	25.61	PRO
	ATOM	302	CE	MET	A	33	55.367	17.171	30.851	1.00	22.04	PRO
	ATOM	303	N	GLY	A	34	54.809	19.543	34.150	1.00	29.36	PRO
35	ATOM	304	CA	GLY	A	34	55.864	19.050	35.032	1.00	27.26	PRO
	ATOM	306	C	GLY	A	34	57.164	18.718	34.296	1.00	26.16	PRO
	ATOM	307	O	GLY	A	34	57.338	19.142	33.146	1.00	27.52	PRO
	ATOM	308	N	PRO	A	35	58.088	17.950	34.915	1.00	24.25	PRO
	ATOM	309	CA	PRO	A	35	59.382	17.561	34.324	1.00	23.96	PRO
40	ATOM	310	CD	PRO	A	35	57.822	17.169	36.138	1.00	23.54	PRO
	ATOM	311	C	PRO	A	35	59.256	16.845	32.984	1.00	25.22	PRO
	ATOM	312	O	PRO	A	35	58.267	16.141	32.735	1.00	26.64	PRO
	ATOM	313	CB	PRO	A	35	59.990	16.650	35.394	1.00	21.48	PRO
	ATOM	314	CG	PRO	A	35	58.796	16.015	36.015	1.00	21.47	PRO
45	ATOM	315	N	GLN	A	36	60.254	17.022	32.123	1.00	19.97	PRO
	ATOM	316	CA	GLN	A	36	60.218	16.404	30.806	1.00	19.48	PRO
	ATOM	318	C	GLN	A	36	61.440	15.540	30.544	1.00	20.38	PRO
	ATOM	319	O	GLN	A	36	62.556	15.886	30.920	1.00	19.42	PRO
	ATOM	320	CB	GLN	A	36	59.995	17.479	29.740	1.00	17.30	PRO
50	ATOM	321	CG	GLN	A	36	58.590	18.076	29.864	1.00	17.28	PRO
	ATOM	322	CD	GLN	A	36	58.423	19.436	29.234	1.00	18.12	PRO
	ATOM	323	OE1	GLN	A	36	59.353	20.245	29.207	1.00	19.04	PRO
	ATOM	324	NE2	GLN	A	36	57.222	19.697	28.705	1.00	14.82	PRO
	ATOM	327	N	GLU	A	37	61.205	14.386	29.934	1.00	23.26	PRO
55	ATOM	328	CA	GLU	A	37	62.250	13.409	29.679	1.00	24.62	PRO
	ATOM	330	C	GLU	A	37	62.749	13.289	28.244	1.00	23.25	PRO
	ATOM	331	O	GLU	A	37	63.865	12.831	28.016	1.00	24.61	PRO
	ATOM	332	CB	GLU	A	37	61.775	12.033	30.170	1.00	29.81	PRO
	ATOM	333	CG	GLU	A	37	61.700	11.889	31.703	1.00	32.70	PRO
60	ATOM	334	CD	GLU	A	37	60.365	12.318	32.299	1.00	32.96	PRO
	ATOM	335	OE1	GLU	A	37	60.081	11.926	33.448	0.00	53.03	PRO
	ATOM	336	OE2	GLU	A	37	59.601	13.042	31.633	0.00	66.72	PRO
	ATOM	337	N	LYS	A	38	61.940	13.681	27.270	1.00	22.56	PRO
	ATOM	338	CA	LYS	A	38	62.356	13.547	25.879	1.00	21.96	PRO
65	ATOM	340	C	LYS	A	38	61.770	14.598	24.951	1.00	20.86	PRO
	ATOM	341	O	LYS	A	38	60.724	15.187	25.218	1.00	18.01	PRO
	ATOM	342	CB	LYS	A	38	62.019	12.136	25.355	1.00	26.59	PRO
	ATOM	343	CG	LYS	A	38	60.537	11.722	25.486	1.00	29.63	PRO
	ATOM	344	CD	LYS	A	38	60.313	10.749	26.649	1.00	33.44	PRO
70	ATOM	345	CE	LYS	A	38	58.910	10.126	26.637	1.00	34.06	PRO
	ATOM	346	NZ	LYS	A	38	58.889	8.818	25.941	1.00	35.59	PRO
	ATOM	350	N	LYS	A	39	62.456	14.791	23.837	1.00	18.17	PRO
	ATOM	351	CA	LYS	A	39	62.074	15.752	22.819	1.00	19.93	PRO
	ATOM	353	C	LYS	A	39	61.732	14.935	21.564	1.00	20.72	PRO

5	ATOM	354	O	LYS	A	39	62.288	13.856	21.357	1.00	19.80	PRO
	ATOM	355	CB	LYS	A	39	63.272	16.671	22.553	1.00	17.84	PRO
	ATOM	356	CG	LYS	A	39	63.167	17.579	21.359	1.00	23.58	PRO
	ATOM	357	CD	LYS	A	39	64.412	18.440	21.238	1.00	26.04	PRO
	ATOM	358	CE	LYS	A	39	65.463	17.803	20.330	1.00	28.29	PRO
	ATOM	359	NZ	LYS	A	39	66.696	17.328	21.051	1.00	31.09	PRO
	ATOM	363	N	VAL	A	40	60.753	15.399	20.790	1.00	20.13	PRO
	ATOM	364	CA	VAL	A	40	60.377	14.749	19.532	1.00	18.57	PRO
10	ATOM	366	C	VAL	A	40	60.072	15.880	18.549	1.00	16.44	PRO
	ATOM	367	O	VAL	A	40	59.238	16.742	18.826	1.00	16.53	PRO
	ATOM	368	CB	VAL	A	40	59.120	13.828	19.678	1.00	19.60	PRO
	ATOM	369	CG1	VAL	A	40	58.686	13.301	18.302	1.00	17.10	PRO
	ATOM	370	CG2	VAL	A	40	59.410	12.660	20.614	1.00	16.86	PRO
15	ATOM	371	N	VAL	A	41	60.796	15.922	17.440	1.00	13.74	PRO
	ATOM	372	CA	VAL	A	41	60.565	16.953	16.437	1.00	14.74	PRO
	ATOM	374	C	VAL	A	41	59.635	16.446	15.331	1.00	12.80	PRO
	ATOM	375	O	VAL	A	41	59.795	15.328	14.843	1.00	8.59	PRO
	ATOM	376	CB	VAL	A	41	61.909	17.437	15.825	1.00	16.75	PRO
20	ATOM	377	CG1	VAL	A	41	61.685	18.573	14.813	1.00	14.47	PRO
	ATOM	378	CG2	VAL	A	41	62.820	17.919	16.933	1.00	18.82	PRO
	ATOM	379	N	VAL	A	42	58.627	17.239	14.985	1.00	13.18	PRO
	ATOM	380	CA	VAL	A	42	57.727	16.867	13.906	1.00	15.54	PRO
	ATOM	382	C	VAL	A	42	57.552	18.005	12.921	1.00	15.72	PRO
25	ATOM	383	O	VAL	A	42	57.537	19.180	13.293	1.00	18.21	PRO
	ATOM	384	CB	VAL	A	42	56.342	16.378	14.392	1.00	17.67	PRO
	ATOM	385	CG1	VAL	A	42	56.503	15.212	15.342	1.00	14.97	PRO
	ATOM	386	CG2	VAL	A	42	55.578	17.505	15.043	1.00	21.85	PRO
	ATOM	387	N	TYR	A	43	57.475	17.635	11.651	1.00	15.63	PRO
30	ATOM	388	CA	TYR	A	43	57.301	18.571	10.555	1.00	15.61	PRO
	ATOM	390	C	TYR	A	43	55.934	18.336	9.935	1.00	16.03	PRO
	ATOM	391	O	TYR	A	43	55.587	17.204	9.572	1.00	16.47	PRO
	ATOM	392	CB	TYR	A	43	58.388	18.337	9.519	1.00	16.20	PRO
	ATOM	393	CG	TYR	A	43	59.765	18.303	10.132	1.00	16.47	PRO
35	ATOM	394	CD1	TYR	A	43	60.512	19.467	10.283	1.00	13.61	PRO
	ATOM	395	CE1	TYR	A	43	61.790	19.428	10.829	1.00	15.02	PRO
	ATOM	396	CZ	TYR	A	43	62.329	18.218	11.236	1.00	15.57	PRO
	ATOM	397	OH	TYR	A	43	63.598	18.164	11.773	1.00	16.03	PRO
	ATOM	399	CE2	TYR	A	43	61.602	17.055	11.103	1.00	17.39	PRO
40	ATOM	400	CD2	TYR	A	43	60.324	17.102	10.552	1.00	17.30	PRO
	ATOM	401	N	LEU	A	44	55.155	19.405	9.852	1.00	12.23	PRO
	ATOM	402	CA	LEU	A	44	53.812	19.352	9.304	1.00	13.63	PRO
	ATOM	404	C	LEU	A	44	53.787	20.109	7.980	1.00	12.38	PRO
	ATOM	405	O	LEU	A	44	54.097	21.297	7.924	1.00	13.39	PRO
45	ATOM	406	CB	LEU	A	44	52.824	19.962	10.302	1.00	10.83	PRO
	ATOM	407	CG	LEU	A	44	52.887	19.360	11.717	1.00	11.09	PRO
	ATOM	408	CD1	LEU	A	44	51.823	19.980	12.605	1.00	9.51	PRO
	ATOM	409	CD2	LEU	A	44	52.699	17.859	11.649	1.00	5.00	PRO
	ATOM	410	N	GLN	A	45	53.378	19.432	6.919	1.00	12.76	PRO
50	ATOM	411	CA	GLN	A	45	53.368	20.058	5.610	1.00	14.83	PRO
	ATOM	413	C	GLN	A	45	52.033	20.110	4.897	1.00	16.96	PRO
	ATOM	414	O	GLN	A	45	51.253	19.171	4.949	1.00	14.58	PRO
	ATOM	415	CB	GLN	A	45	54.411	19.392	4.715	1.00	15.19	PRO
	ATOM	416	CG	GLN	A	45	55.853	19.799	5.044	1.00	14.74	PRO
55	ATOM	417	CD	GLN	A	45	56.904	19.012	4.259	1.00	15.53	PRO
	ATOM	418	OE1	GLN	A	45	56.588	18.240	3.355	1.00	13.69	PRO
	ATOM	419	NE2	GLN	A	45	58.159	19.195	4.627	1.00	18.71	PRO
	ATOM	422	N	LYS	A	46	51.832	21.214	4.189	1.00	21.23	PRO
	ATOM	423	CA	LYS	A	46	50.644	21.512	3.400	1.00	23.48	PRO
60	ATOM	425	C	LYS	A	46	49.791	20.337	2.986	1.00	23.73	PRO
	ATOM	426	O	LYS	A	46	50.217	19.430	2.254	1.00	19.07	PRO
	ATOM	427	CB	LYS	A	46	51.017	22.336	2.170	1.00	32.34	PRO
	ATOM	428	CG	LYS	A	46	49.842	22.978	1.467	1.00	34.72	PRO
	ATOM	429	CD	LYS	A	46	49.809	22.583	0.004	1.00	37.61	PRO
65	ATOM	430	CE	LYS	A	46	50.829	23.351	-0.813	1.00	37.53	PRO
	ATOM	431	NZ	LYS	A	46	51.082	22.628	-2.088	1.00	39.40	PRO
	ATOM	435	N	LEU	A	47	48.520	20.566	3.280	1.00	24.97	PRO
	ATOM	436	CA	LEU	A	47	47.393	19.673	3.160	1.00	19.69	PRO
	ATOM	438	C	LEU	A	47	47.374	18.817	4.418	1.00	17.51	PRO
70	ATOM	439	O	LEU	A	47	46.779	19.261	5.390	1.00	16.56	PRO
	ATOM	440	CB	LEU	A	47	47.294	18.941	1.827	1.00	20.27	PRO
	ATOM	441	CG	LEU	A	47	46.198	19.646	0.989	1.00	20.70	PRO
	ATOM	442	CD1	LEU	A	47	46.498	21.119	0.862	1.00	18.50	PRO
	ATOM	443	CD2	LEU	A	47	45.986	19.033	-0.396	1.00	17.02	PRO
	ATOM	444	N	ASP	A	48	48.128	17.725	4.511	1.00	12.02	PRO

	ATOM	445	CA	ASP	A	48	48.030	16.946	5.746	1.00	12.58	PRO
	ATOM	447	C	ASP	A	48	49.128	15.948	6.098	1.00	10.88	PRO
	ATOM	448	O	ASP	A	48	48.851	14.971	6.793	1.00	10.92	PRO
5	ATOM	449	CB	ASP	A	48	46.672	16.228	5.797	1.00	11.94	PRO
	ATOM	450	CG	ASP	A	48	46.643	14.934	4.967	1.00	16.11	PRO
	ATOM	451	OD1	ASP	A	48	45.862	14.024	5.314	1.00	18.12	PRO
	ATOM	452	OD2	ASP	A	48	47.399	14.802	3.979	1.00	14.88	PRO
	ATOM	453	N	THR	A	49	50.365	16.164	5.661	1.00	10.94	PRO
10	ATOM	454	CA	THR	A	49	51.387	15.187	6.019	1.00	13.01	PRO
	ATOM	456	C	THR	A	49	52.278	15.568	7.195	1.00	12.32	PRO
	ATOM	457	O	THR	A	49	52.651	16.723	7.377	1.00	11.93	PRO
	ATOM	458	CB	THR	A	49	52.212	14.619	4.785	1.00	12.39	PRO
	ATOM	459	OG1	THR	A	49	53.621	14.782	4.982	1.00	17.25	PRO
15	ATOM	461	CG2	THR	A	49	51.804	15.232	3.508	1.00	5.00	PRO
	ATOM	462	N	ALA	A	50	52.524	14.594	8.053	1.00	11.21	PRO
	ATOM	463	CA	ALA	A	50	53.385	14.819	9.194	1.00	15.73	PRO
	ATOM	465	C	ALA	A	50	54.569	13.864	9.082	1.00	17.71	PRO
	ATOM	466	O	ALA	A	50	54.407	12.746	8.598	1.00	14.32	PRO
20	ATOM	467	CB	ALA	A	50	52.612	14.552	10.494	1.00	12.41	PRO
	ATOM	468	N	TYR	A	51	55.765	14.317	9.447	1.00	19.44	PRO
	ATOM	469	CA	TYR	A	51	56.913	13.411	9.445	1.00	22.67	PRO
	ATOM	471	C	TYR	A	51	57.889	13.806	10.547	1.00	22.99	PRO
	ATOM	472	O	TYR	A	51	57.820	14.926	11.046	1.00	22.62	PRO
25	ATOM	473	CB	TYR	A	51	57.579	13.327	8.059	1.00	23.09	PRO
	ATOM	474	CG	TYR	A	51	58.399	14.514	7.638	1.00	23.61	PRO
	ATOM	475	CD1	TYR	A	51	57.819	15.583	6.966	1.00	24.58	PRO
	ATOM	476	CE1	TYR	A	51	58.595	16.659	6.514	1.00	26.18	PRO
	ATOM	477	CZ	TYR	A	51	59.967	16.662	6.740	1.00	26.36	PRO
	ATOM	478	OH	TYR	A	51	60.751	17.709	6.289	1.00	27.34	PRO
30	ATOM	480	CE2	TYR	A	51	60.560	15.605	7.414	1.00	26.85	PRO
	ATOM	481	CD2	TYR	A	51	59.774	14.540	7.860	1.00	25.21	PRO
	ATOM	482	N	ASP	A	52	58.719	12.868	10.998	1.00	25.73	PRO
	ATOM	483	CA	ASP	A	52	59.681	13.168	12.057	1.00	27.61	PRO
	ATOM	485	C	ASP	A	52	61.113	12.988	11.590	1.00	30.19	PRO
35	ATOM	486	O	ASP	A	52	61.351	12.762	10.409	1.00	31.89	PRO
	ATOM	487	CB	ASP	A	52	59.399	12.341	13.326	1.00	29.50	PRO
	ATOM	488	CG	ASP	A	52	59.447	10.828	13.096	1.00	31.93	PRO
	ATOM	489	OD1	ASP	A	52	58.785	10.088	13.869	1.00	36.20	PRO
40	ATOM	490	OD2	ASP	A	52	60.145	10.365	12.171	1.00	32.81	PRO
	ATOM	491	N	ASP	A	53	62.064	13.078	12.516	1.00	33.20	PRO
	ATOM	492	CA	ASP	A	53	63.483	12.933	12.185	1.00	35.77	PRO
	ATOM	494	C	ASP	A	53	63.905	11.530	11.755	1.00	37.54	PRO
	ATOM	495	O	ASP	A	53	64.846	11.379	10.978	1.00	40.19	PRO
45	ATOM	496	CB	ASP	A	53	64.367	13.412	13.343	1.00	34.60	PRO
	ATOM	497	CG	ASP	A	53	64.511	14.934	13.391	1.00	34.90	PRO
	ATOM	498	OD1	ASP	A	53	64.618	15.489	14.505	1.00	35.32	PRO
	ATOM	499	OD2	ASP	A	53	64.547	15.574	12.317	1.00	32.61	PRO
	ATOM	500	N	LEU	A	54	63.211	10.506	12.249	1.00	38.83	PRO
50	ATOM	501	CA	LEU	A	54	63.535	9.123	11.899	1.00	37.97	PRO
	ATOM	503	C	LEU	A	54	63.057	8.773	10.493	1.00	39.04	PRO
	ATOM	504	O	LEU	A	54	63.183	7.627	10.065	1.00	44.37	PRO
	ATOM	505	CB	LEU	A	54	62.930	8.146	12.912	1.00	38.45	PRO
	ATOM	506	CG	LEU	A	54	63.499	8.172	14.336	1.00	39.31	PRO
55	ATOM	507	CD1	LEU	A	54	62.521	7.559	15.337	1.00	39.32	PRO
	ATOM	508	CD2	LEU	A	54	64.837	7.456	14.366	1.00	40.14	PRO
	ATOM	509	N	GLY	A	55	62.485	9.748	9.790	1.00	36.89	PRO
	ATOM	510	CA	GLY	A	55	62.011	9.511	8.435	1.00	35.91	PRO
	ATOM	512	C	GLY	A	55	60.617	8.913	8.324	1.00	33.63	PRO
	ATOM	513	O	GLY	A	55	60.181	8.538	7.228	1.00	33.70	PRO
60	ATOM	514	N	ASN	A	56	59.926	8.808	9.455	1.00	29.67	PRO
	ATOM	515	CA	ASN	A	56	58.573	8.269	9.485	1.00	28.66	PRO
	ATOM	517	C	ASN	A	56	57.576	9.285	8.932	1.00	26.84	PRO
	ATOM	518	O	ASN	A	56	57.751	10.496	9.102	1.00	25.54	PRO
	ATOM	519	CB	ASN	A	56	58.184	7.892	10.910	1.00	30.15	PRO
65	ATOM	520	CG	ASN	A	56	59.048	6.787	11.475	1.00	31.42	PRO
	ATOM	521	OD1	ASN	A	56	59.157	5.709	10.895	1.00	34.07	PRO
	ATOM	522	ND2	ASN	A	56	59.655	7.043	12.623	1.00	31.14	PRO
	ATOM	525	N	SER	A	57	56.539	8.780	8.265	1.00	24.80	PRO
70	ATOM	526	CA	SER	A	57	55.504	9.619	7.673	1.00	22.39	PRO
	ATOM	528	C	SER	A	57	54.121	9.342	8.275	1.00	18.34	PRO
	ATOM	529	O	SER	A	57	53.807	8.215	8.639	1.00	20.89	PRO
	ATOM	530	CB	SER	A	57	55.467	9.393	6.172	1.00	23.64	PRO
	ATOM	531	OG	SER	A	57	55.309	10.627	5.504	1.00	28.59	PRO
	ATOM	533	N	GLY	A	58	53.285	10.369	8.355	1.00	16.44	PRO

	ATOM	534	CA	GLY	A	58	51.958	10.204	8.925	1.00	12.83	PRO
	ATOM	536	C	GLY	A	58	51.065	11.346	8.494	1.00	15.34	PRO
	ATOM	537	O	GLY	A	58	51.356	12.012	7.490	1.00	9.94	PRO
	ATOM	538	N	HIS	A	59	50.034	11.629	9.292	1.00	14.90	PRO
5	ATOM	539	CA	HIS	A	59	49.071	12.684	8.977	1.00	17.79	PRO
	ATOM	541	C	HIS	A	59	48.718	13.599	10.151	1.00	14.00	PRO
	ATOM	542	O	HIS	A	59	48.987	13.279	11.309	1.00	15.77	PRO
	ATOM	543	CB	HIS	A	59	47.781	12.057	8.436	1.00	23.79	PRO
	ATOM	544	CG	HIS	A	59	47.982	11.258	7.188	1.00	31.57	PRO
10	ATOM	545	ND1	HIS	A	59	48.217	9.899	7.203	1.00	33.52	PRO
	ATOM	546	CE1	HIS	A	59	48.417	9.474	5.966	1.00	34.07	PRO
	ATOM	547	NE2	HIS	A	59	48.311	10.508	5.151	1.00	36.86	PRO
	ATOM	548	CD2	HIS	A	59	48.036	11.636	5.888	1.00	34.48	PRO
	ATOM	551	N	PHE	A	60	48.105	14.737	9.835	1.00	11.02	PRO
15	ATOM	552	CA	PHE	A	60	47.663	15.687	10.850	1.00	11.71	PRO
	ATOM	554	C	PHE	A	60	46.457	16.431	10.336	1.00	12.61	PRO
	ATOM	555	O	PHE	A	60	46.178	16.431	9.136	1.00	11.68	PRO
	ATOM	556	CB	PHE	A	60	48.750	16.724	11.181	1.00	10.08	PRO
	ATOM	557	CG	PHE	A	60	48.906	17.819	10.148	1.00	11.28	PRO
20	ATOM	558	CD1	PHE	A	60	48.138	18.982	10.216	1.00	10.32	PRO
	ATOM	559	CE1	PHE	A	60	48.313	20.007	9.281	1.00	11.95	PRO
	ATOM	560	CZ	PHE	A	60	49.262	19.873	8.271	1.00	11.13	PRO
	ATOM	561	CE2	PHE	A	60	50.025	18.725	8.195	1.00	9.72	PRO
	ATOM	562	CD2	PHE	A	60	49.845	17.702	9.129	1.00	11.30	PRO
25	ATOM	563	N	THR	A	61	45.764	17.090	11.253	1.00	10.97	PRO
	ATOM	564	CA	THR	A	61	44.641	17.931	10.906	1.00	8.54	PRO
	ATOM	566	C	THR	A	61	44.538	18.955	12.003	1.00	11.33	PRO
	ATOM	567	O	THR	A	61	44.857	18.655	13.156	1.00	11.67	PRO
	ATOM	568	CB	THR	A	61	43.319	17.158	10.869	1.00	10.59	PRO
30	ATOM	569	OG1	THR	A	61	42.253	18.078	10.610	1.00	10.38	PRO
	ATOM	571	CG2	THR	A	61	43.042	16.470	12.214	1.00	10.36	PRO
	ATOM	572	N	ILE	A	62	44.202	20.188	11.651	1.00	11.11	PRO
	ATOM	573	CA	ILE	A	62	43.966	21.184	12.681	1.00	8.55	PRO
	ATOM	575	C	ILE	A	62	42.530	20.846	13.108	1.00	7.50	PRO
35	ATOM	576	O	ILE	A	62	41.820	20.164	12.380	1.00	8.31	PRO
	ATOM	577	CB	ILE	A	62	44.075	22.630	12.146	1.00	9.25	PRO
	ATOM	578	CG2	ILE	A	62	42.984	22.894	11.109	1.00	5.00	PRO
	ATOM	579	CG1	ILE	A	62	43.970	23.627	13.309	1.00	10.65	PRO
	ATOM	580	CD1	ILE	A	62	44.456	25.051	13.015	1.00	9.59	PRO
40	ATOM	581	N	ILE	A	63	42.149	21.199	14.331	1.00	9.36	PRO
	ATOM	582	CA	ILE	A	63	40.805	20.938	14.833	1.00	8.20	PRO
	ATOM	584	C	ILE	A	63	40.194	22.325	14.938	1.00	10.27	PRO
	ATOM	585	O	ILE	A	63	40.432	23.038	15.907	1.00	9.69	PRO
	ATOM	586	CB	ILE	A	63	40.852	20.273	16.219	1.00	8.92	PRO
45	ATOM	587	CG2	ILE	A	63	39.452	20.136	16.796	1.00	8.07	PRO
	ATOM	588	CG1	ILE	A	63	41.474	18.887	16.100	1.00	8.31	PRO
	ATOM	589	CD1	ILE	A	63	41.878	18.286	17.412	1.00	8.64	PRO
	ATOM	590	N	TYR	A	64	39.448	22.714	13.906	1.00	9.89	PRO
	ATOM	591	CA	TYR	A	64	38.844	24.038	13.825	1.00	10.63	PRO
50	ATOM	593	C	TYR	A	64	39.984	25.048	13.996	1.00	11.41	PRO
	ATOM	594	O	TYR	A	64	40.938	25.025	13.217	1.00	10.39	PRO
	ATOM	595	CB	TYR	A	64	37.731	24.185	14.870	1.00	11.31	PRO
	ATOM	596	CG	TYR	A	64	36.821	25.381	14.672	1.00	14.85	PRO
	ATOM	597	CD1	TYR	A	64	36.183	25.609	13.448	1.00	14.08	PRO
55	ATOM	598	CE1	TYR	A	64	35.318	26.692	13.279	1.00	15.22	PRO
	ATOM	599	CZ	TYR	A	64	35.092	27.557	14.341	1.00	16.98	PRO
	ATOM	600	OH	TYR	A	64	34.240	28.620	14.184	1.00	17.14	PRO
	ATOM	602	CE2	TYR	A	64	35.717	27.364	15.567	1.00	14.87	PRO
	ATOM	603	CD2	TYR	A	64	36.571	26.277	15.725	1.00	15.82	PRO
60	ATOM	604	N	ASN	A	65	39.933	25.865	15.047	1.00	13.63	PRO
	ATOM	605	CA	ASN	A	65	40.976	26.858	15.330	1.00	11.32	PRO
	ATOM	607	C	ASN	A	65	41.511	26.639	16.752	1.00	11.93	PRO
	ATOM	608	O	ASN	A	65	42.204	27.490	17.307	1.00	11.79	PRO
	ATOM	609	CB	ASN	A	65	40.370	28.269	15.246	1.00	12.60	PRO
65	ATOM	610	CG	ASN	A	65	39.256	28.515	16.287	1.00	14.16	PRO
	ATOM	611	OD1	ASN	A	65	38.990	27.676	17.140	1.00	14.13	PRO
	ATOM	612	ND2	ASN	A	65	38.617	29.685	16.216	1.00	13.75	PRO
	ATOM	615	N	GLN	A	66	41.204	25.472	17.305	1.00	9.97	PRO
	ATOM	616	CA	GLN	A	66	41.511	25.114	18.685	1.00	9.65	PRO
70	ATOM	618	C	GLN	A	66	42.804	24.420	19.037	1.00	10.42	PRO
	ATOM	619	O	GLN	A	66	43.382	24.671	20.094	1.00	13.16	PRO
	ATOM	620	CB	GLN	A	66	40.379	24.241	19.210	1.00	7.51	PRO
	ATOM	621	CG	GLN	A	66	39.062	24.956	19.239	1.00	11.49	PRO
	ATOM	622	CD	GLN	A	66	38.968	25.863	20.439	1.00	12.11	PRO

	ATOM	623	OE1	GLN	A	66	38.430	25.482	21.471	1.00	15.08	PRO
	ATOM	624	NE2	GLN	A	66	39.556	27.041	20.333	1.00	14.00	PRO
	ATOM	627	N	GLY	A	67	43.184	23.460	18.214	1.00	8.73	PRO
	ATOM	628	CA	GLY	A	67	44.364	22.667	18.476	1.00	6.27	PRO
5	ATOM	630	C	GLY	A	67	44.551	21.735	17.300	1.00	12.29	PRO
	ATOM	631	O	GLY	A	67	43.970	21.979	16.233	1.00	11.73	PRO
	ATOM	632	N	PHE	A	68	45.258	20.627	17.507	1.00	9.26	PRO
	ATOM	633	CA	PHE	A	68	45.558	19.708	16.424	1.00	8.96	PRO
	ATOM	635	C	PHE	A	68	45.710	18.262	16.874	1.00	13.12	PRO
10	ATOM	636	O	PHE	A	68	45.976	17.983	18.043	1.00	18.06	PRO
	ATOM	637	CB	PHE	A	68	46.899	20.114	15.798	1.00	7.94	PRO
	ATOM	638	CG	PHE	A	68	48.035	20.139	16.793	1.00	13.51	PRO
	ATOM	639	CD1	PHE	A	68	48.402	21.325	17.418	1.00	12.94	PRO
	ATOM	640	CE1	PHE	A	68	49.377	21.330	18.421	1.00	14.31	PRO
15	ATOM	641	CZ	PHE	A	68	50.015	20.144	18.794	1.00	13.88	PRO
	ATOM	642	CE2	PHE	A	68	49.667	18.956	18.178	1.00	15.07	PRO
	ATOM	643	CD2	PHE	A	68	48.685	18.957	17.170	1.00	14.41	PRO
	ATOM	644	N	GLU	A	69	45.607	17.351	15.918	1.00	10.09	PRO
	ATOM	645	CA	GLU	A	69	45.864	15.956	16.174	1.00	8.76	PRO
20	ATOM	647	C	GLU	A	69	46.818	15.456	15.083	1.00	10.51	PRO
	ATOM	648	O	GLU	A	69	46.639	15.748	13.893	1.00	10.37	PRO
	ATOM	649	CB	GLU	A	69	44.594	15.113	16.202	1.00	8.84	PRO
	ATOM	650	CG	GLU	A	69	44.928	13.712	16.683	1.00	10.57	PRO
	ATOM	651	CD	GLU	A	69	43.765	12.768	16.744	1.00	12.35	PRO
25	ATOM	652	OE1	GLU	A	69	43.475	12.266	17.846	1.00	13.28	PRO
	ATOM	653	OE2	GLU	A	69	43.184	12.467	15.692	1.00	13.05	PRO
	ATOM	654	N	ILE	A	70	47.873	14.770	15.508	1.00	9.04	PRO
	ATOM	655	CA	ILE	A	70	48.866	14.214	14.601	1.00	8.76	PRO
	ATOM	657	C	ILE	A	70	48.959	12.712	14.849	1.00	12.47	PRO
30	ATOM	658	O	ILE	A	70	49.033	12.275	16.003	1.00	12.19	PRO
	ATOM	659	CB	ILE	A	70	50.242	14.811	14.872	1.00	7.66	PRO
	ATOM	660	CG2	ILE	A	70	51.271	14.217	13.926	1.00	9.16	PRO
	ATOM	661	CG1	ILE	A	70	50.178	16.330	14.782	1.00	7.46	PRO
	ATOM	662	CD1	ILE	A	70	51.416	17.015	15.271	1.00	9.75	PRO
35	ATOM	663	N	VAL	A	71	48.883	11.921	13.786	1.00	9.31	PRO
	ATOM	664	CA	VAL	A	71	49.018	10.466	13.904	1.00	11.99	PRO
	ATOM	666	C	VAL	A	71	50.308	10.137	13.151	1.00	14.14	PRO
	ATOM	667	O	VAL	A	71	50.411	10.316	11.935	1.00	14.52	PRO
	ATOM	668	CB	VAL	A	71	47.795	9.726	13.327	1.00	13.36	PRO
40	ATOM	669	CG1	VAL	A	71	47.963	8.216	13.487	1.00	11.77	PRO
	ATOM	670	CG2	VAL	A	71	46.528	10.198	14.044	1.00	14.45	PRO
	ATOM	671	N	LEU	A	72	51.299	9.660	13.882	1.00	11.74	PRO
	ATOM	672	CA	LEU	A	72	52.591	9.457	13.288	1.00	12.60	PRO
	ATOM	674	C	LEU	A	72	53.310	8.375	14.078	1.00	16.19	PRO
45	ATOM	675	O	LEU	A	72	53.310	8.411	15.313	1.00	15.83	PRO
	ATOM	676	CB	LEU	A	72	53.330	10.784	13.459	1.00	13.60	PRO
	ATOM	677	CG	LEU	A	72	54.508	11.334	12.661	1.00	15.81	PRO
	ATOM	678	CD1	LEU	A	72	55.524	11.900	13.642	1.00	15.37	PRO
	ATOM	679	CD2	LEU	A	72	55.123	10.287	11.753	1.00	15.79	PRO
50	ATOM	680	N	ASN	A	73	53.881	7.402	13.374	1.00	16.36	PRO
	ATOM	681	CA	ASN	A	73	54.657	6.333	13.994	1.00	18.04	PRO
	ATOM	683	C	ASN	A	73	53.938	5.601	15.142	1.00	15.75	PRO
	ATOM	684	O	ASN	A	73	54.499	5.383	16.223	1.00	18.75	PRO
	ATOM	685	CB	ASN	A	73	55.979	6.914	14.481	1.00	26.20	PRO
55	ATOM	686	CG	ASN	A	73	57.098	5.917	14.422	1.00	32.50	PRO
	ATOM	687	OD1	ASN	A	73	57.520	5.512	13.333	1.00	36.96	PRO
	ATOM	688	ND2	ASN	A	73	57.588	5.495	15.587	1.00	32.35	PRO
	ATOM	691	N	ASP	A	74	52.687	5.238	14.904	1.00	11.49	PRO
	ATOM	692	CA	ASP	A	74	51.876	4.544	15.892	1.00	10.93	PRO
60	ATOM	694	C	ASP	A	74	51.561	5.311	17.189	1.00	11.14	PRO
	ATOM	695	O	ASP	A	74	51.165	4.710	18.184	1.00	9.81	PRO
	ATOM	696	CB	ASP	A	74	52.428	3.139	16.173	1.00	10.30	PRO
	ATOM	697	CG	ASP	A	74	51.852	2.090	15.225	1.00	14.53	PRO
	ATOM	698	OD1	ASP	A	74	52.378	0.957	15.164	1.00	16.09	PRO
65	ATOM	699	OD2	ASP	A	74	50.855	2.391	14.539	1.00	14.66	PRO
	ATOM	700	N	TYR	A	75	51.685	6.639	17.142	1.00	9.14	PRO
	ATOM	701	CA	TYR	A	75	51.343	7.522	18.260	1.00	8.00	PRO
	ATOM	703	C	TYR	A	75	50.427	8.642	17.774	1.00	8.53	PRO
	ATOM	704	O	TYR	A	75	50.474	9.046	16.604	1.00	8.21	PRO
70	ATOM	705	CB	TYR	A	75	52.588	8.135	18.909	1.00	8.59	PRO
	ATOM	706	CG	TYR	A	75	53.327	7.198	19.840	1.00	8.16	PRO
	ATOM	707	CD1	TYR	A	75	53.068	7.204	21.213	1.00	10.82	PRO
	ATOM	708	CE1	TYR	A	75	53.726	6.322	22.084	1.00	5.12	PRO
	ATOM	709	CZ	TYR	A	75	54.643	5.433	21.579	1.00	5.00	PRO

	ATOM	710	OH	TYR	A	75	55.268	4.554	22.437	1.00	7.38	PRO
	ATOM	712	CE2	TYR	A	75	54.924	5.408	20.216	1.00	7.44	PRO
	ATOM	713	CD2	TYR	A	75	54.268	6.292	19.353	1.00	7.38	PRO
	ATOM	714	N	LYS	A	76	49.543	9.090	18.655	1.00	7.92	PRO
5	ATOM	715	CA	LYS	A	76	48.618	10.174	18.346	1.00	9.49	PRO
	ATOM	717	C	LYS	A	76	48.924	11.306	19.304	1.00	10.86	PRO
	ATOM	718	O	LYS	A	76	48.946	11.080	20.523	1.00	13.36	PRO
	ATOM	719	CB	LYS	A	76	47.173	9.727	18.573	1.00	8.89	PRO
	ATOM	720	CG	LYS	A	76	46.740	8.542	17.698	1.00	8.89	PRO
10	ATOM	721	CD	LYS	A	76	45.223	8.511	17.553	1.00	7.96	PRO
	ATOM	722	CE	LYS	A	76	44.729	7.249	16.875	1.00	6.38	PRO
	ATOM	723	NZ	LYS	A	76	43.287	7.426	16.521	1.00	6.89	PRO
	ATOM	727	N	TRP	A	77	49.161	12.503	18.762	1.00	9.62	PRO
	ATOM	728	CA	TRP	A	77	49.456	13.693	19.551	1.00	8.71	PRO
15	ATOM	730	C	TRP	A	77	48.284	14.641	19.481	1.00	12.30	PRO
	ATOM	731	O	TRP	A	77	47.796	14.956	18.388	1.00	7.37	PRO
	ATOM	732	CB	TRP	A	77	50.655	14.468	18.980	1.00	7.73	PRO
	ATOM	733	CG	TRP	A	77	51.924	13.693	18.837	1.00	9.09	PRO
	ATOM	734	CD1	TRP	A	77	52.222	12.785	17.856	1.00	7.81	PRO
20	ATOM	735	NE1	TRP	A	77	53.478	12.269	18.062	1.00	8.11	PRO
	ATOM	736	CE2	TRP	A	77	54.025	12.835	19.187	1.00	8.48	PRO
	ATOM	737	CD2	TRP	A	77	53.076	13.740	19.706	1.00	8.92	PRO
	ATOM	739	CE3	TRP	A	77	53.389	14.455	20.875	1.00	9.79	PRO
	ATOM	740	CZ3	TRP	A	77	54.627	14.246	21.482	1.00	8.11	PRO
25	ATOM	741	CH2	TRP	A	77	55.554	13.335	20.942	1.00	9.18	PRO
	ATOM	742	CZ2	TRP	A	77	55.272	12.621	19.797	1.00	10.61	PRO
	ATOM	743	N	PHE	A	78	47.862	15.137	20.643	1.00	11.70	PRO
	ATOM	744	CA	PHE	A	78	46.798	16.131	20.715	1.00	10.10	PRO
	ATOM	746	C	PHE	A	78	47.062	17.203	21.774	1.00	11.14	PRO
30	ATOM	747	O	PHE	A	78	47.459	16.902	22.895	1.00	9.49	PRO
	ATOM	748	CB	PHE	A	78	45.445	15.500	21.022	1.00	10.43	PRO
	ATOM	749	CG	PHE	A	78	44.420	16.505	21.489	1.00	10.32	PRO
	ATOM	750	CD1	PHE	A	78	43.889	16.433	22.765	1.00	11.86	PRO
	ATOM	751	CE1	PHE	A	78	42.992	17.400	23.215	1.00	12.50	PRO
35	ATOM	752	CZ	PHE	A	78	42.623	18.452	22.375	1.00	12.35	PRO
	ATOM	753	CE2	PHE	A	78	43.150	18.531	21.096	1.00	9.91	PRO
	ATOM	754	CD2	PHE	A	78	44.038	17.561	20.663	1.00	9.75	PRO
	ATOM	755	N	ALA	A	79	46.761	18.448	21.430	1.00	12.04	PRO
	ATOM	756	CA	ALA	A	79	46.914	19.563	22.353	1.00	11.57	PRO
40	ATOM	758	C	ALA	A	79	46.167	20.757	21.803	1.00	12.51	PRO
	ATOM	759	O	ALA	A	79	45.922	20.857	20.598	1.00	9.86	PRO
	ATOM	760	CB	ALA	A	79	48.392	19.917	22.554	1.00	11.22	PRO
	ATOM	761	N	PHE	A	80	45.749	21.627	22.709	1.00	10.38	PRO
	ATOM	762	CA	PHE	A	80	45.063	22.845	22.349	1.00	9.38	PRO
45	ATOM	764	C	PHE	A	80	46.141	23.919	22.222	1.00	12.74	PRO
	ATOM	765	O	PHE	A	80	47.158	23.858	22.917	1.00	11.04	PRO
	ATOM	766	CB	PHE	A	80	44.106	23.242	23.469	1.00	8.19	PRO
	ATOM	767	CG	PHE	A	80	42.842	22.434	23.518	1.00	8.40	PRO
	ATOM	768	CD1	PHE	A	80	42.509	21.719	24.664	1.00	8.10	PRO
50	ATOM	769	CE1	PHE	A	80	41.299	21.031	24.745	1.00	8.44	PRO
	ATOM	770	CZ	PHE	A	80	40.413	21.051	23.674	1.00	8.96	PRO
	ATOM	771	CE2	PHE	A	80	40.738	21.759	22.516	1.00	8.70	PRO
	ATOM	772	CD2	PHE	A	80	41.949	22.444	22.445	1.00	7.94	PRO
	ATOM	773	N	PHE	A	81	45.932	24.899	21.349	1.00	11.87	PRO
55	ATOM	774	CA	PHE	A	81	46.906	25.985	21.217	1.00	14.93	PRO
	ATOM	776	C	PHE	A	81	46.901	26.767	22.536	1.00	17.87	PRO
	ATOM	777	O	PHE	A	81	45.872	26.831	23.231	1.00	12.76	PRO
	ATOM	778	CB	PHE	A	81	46.578	26.879	20.018	1.00	11.59	PRO
	ATOM	779	CG	PHE	A	81	46.781	26.195	18.684	1.00	13.74	PRO
60	ATOM	780	CD1	PHE	A	81	48.047	25.779	18.287	1.00	13.72	PRO
	ATOM	781	CE1	PHE	A	81	48.232	25.129	17.057	1.00	15.17	PRO
	ATOM	782	CZ	PHE	A	81	47.149	24.896	16.220	1.00	11.95	PRO
	ATOM	783	CE2	PHE	A	81	45.886	25.305	16.606	1.00	13.18	PRO
	ATOM	784	CD2	PHE	A	81	45.704	25.951	17.833	1.00	12.77	PRO
65	ATOM	785	N	LYS	A	82	48.052	27.325	22.890	1.00	19.54	PRO
	ATOM	786	CA	LYS	A	82	48.209	28.035	24.159	1.00	22.55	PRO
	ATOM	788	C	LYS	A	82	47.495	29.370	24.321	1.00	20.27	PRO
	ATOM	789	O	LYS	A	82	47.334	30.127	23.370	1.00	21.74	PRO
	ATOM	790	CB	LYS	A	82	49.695	28.225	24.463	1.00	26.96	PRO
70	ATOM	791	CG	LYS	A	82	49.973	28.725	25.870	1.00	31.05	PRO
	ATOM	792	CD	LYS	A	82	51.457	28.834	26.104	1.00	34.25	PRO
	ATOM	793	CE	LYS	A	82	51.783	28.862	27.583	1.00	35.51	PRO
	ATOM	794	NZ	LYS	A	82	52.502	30.124	27.898	1.00	38.85	PRO
	ATOM	798	N	TYR	A	83	47.025	29.619	25.534	1.00	18.85	PRO

	ATOM	799	CA	TYR	A	83	46.388	30.880	25.876	1.00	22.72	PRO
	ATOM	801	C	TYR	A	83	46.618	31.095	27.371	1.00	26.82	PRO
	ATOM	802	O	TYR	A	83	46.734	30.133	28.125	1.00	21.61	PRO
5	ATOM	803	CB	TYR	A	83	44.893	30.881	25.544	1.00	19.23	PRO
	ATOM	804	CG	TYR	A	83	44.085	29.865	26.308	1.00	20.75	PRO
	ATOM	805	CD1	TYR	A	83	43.447	30.204	27.497	1.00	20.88	PRO
	ATOM	806	CE1	TYR	A	83	42.712	29.266	28.205	1.00	22.07	PRO
	ATOM	807	CZ	TYR	A	83	42.609	27.972	27.721	1.00	24.24	PRO
	ATOM	808	OH	TYR	A	83	41.885	27.027	28.417	1.00	29.18	PRO
10	ATOM	810	CE2	TYR	A	83	43.232	27.613	26.542	1.00	21.41	PRO
	ATOM	811	CD2	TYR	A	83	43.962	28.559	25.846	1.00	22.20	PRO
	ATOM	812	N	LYS	A	84	46.726	32.354	27.782	1.00	34.72	PRO
	ATOM	813	CA	LYS	A	84	46.967	32.717	29.180	1.00	38.87	PRO
	ATOM	815	C	LYS	A	84	45.942	33.712	29.684	1.00	42.17	PRO
15	ATOM	816	O	LYS	A	84	45.702	34.728	29.045	1.00	42.29	PRO
	ATOM	817	CB	LYS	A	84	48.349	33.348	29.332	1.00	39.80	PRO
	ATOM	818	CG	LYS	A	84	49.465	32.356	29.453	1.00	40.99	PRO
	ATOM	819	CD	LYS	A	84	50.807	33.056	29.439	1.00	43.71	PRO
	ATOM	820	CE	LYS	A	84	51.690	32.617	30.605	0.00	11.93	PRO
20	ATOM	821	NZ	LYS	A	84	53.106	33.060	30.426	0.00	12.28	PRO
	ATOM	825	N	GLU	A	85	45.328	33.409	30.819	1.00	48.06	PRO
	ATOM	826	CA	GLU	A	85	44.357	34.317	31.413	1.00	52.35	PRO
	ATOM	828	C	GLU	A	85	44.993	35.023	32.603	1.00	55.65	PRO
	ATOM	829	O	GLU	A	85	45.162	34.430	33.674	1.00	57.29	PRO
25	ATOM	830	CB	GLU	A	85	43.119	33.563	31.879	1.00	52.48	PRO
	ATOM	831	CG	GLU	A	85	42.370	32.858	30.776	1.00	55.33	PRO
	ATOM	832	CD	GLU	A	85	41.352	31.872	31.310	1.00	59.33	PRO
	ATOM	833	OE1	GLU	A	85	40.751	31.138	30.492	1.00	59.80	PRO
	ATOM	834	OE2	GLU	A	85	41.151	31.830	32.548	1.00	63.76	PRO
30	ATOM	835	N	GLU	A	86	45.351	36.288	32.413	1.00	57.63	PRO
	ATOM	836	CA	GLU	A	86	45.960	37.076	33.479	1.00	59.55	PRO
	ATOM	838	C	GLU	A	86	44.868	37.943	34.127	1.00	60.55	PRO
	ATOM	839	O	GLU	A	86	45.106	39.098	34.491	1.00	62.31	PRO
	ATOM	840	CB	GLU	A	86	47.082	37.946	32.902	0.00	62.62	PRO
35	ATOM	841	CG	GLU	A	86	48.048	38.513	33.935	0.00	26.31	PRO
	ATOM	842	CD	GLU	A	86	49.428	38.785	33.361	0.00	27.81	PRO
	ATOM	843	OE1	GLU	A	86	50.427	38.469	34.041	0.00	47.73	PRO
	ATOM	844	OE2	GLU	A	86	49.518	39.318	32.233	0.00	36.69	PRO
	ATOM	845	N	GLY	A	87	43.677	37.361	34.279	1.00	60.35	PRO
40	ATOM	846	CA	GLY	A	87	42.547	38.071	34.853	1.00	60.26	PRO
	ATOM	848	C	GLY	A	87	41.964	39.042	33.845	1.00	60.05	PRO
	ATOM	849	O	GLY	A	87	42.495	40.139	33.658	1.00	61.68	PRO
	ATOM	850	N	SER	A	88	40.899	38.625	33.163	1.00	59.38	PRO
	ATOM	851	CA	SER	A	88	40.235	39.453	32.146	1.00	59.73	PRO
45	ATOM	853	C	SER	A	88	41.047	39.624	30.849	1.00	58.22	PRO
	ATOM	854	O	SER	A	88	40.471	39.806	29.769	1.00	59.43	PRO
	ATOM	855	CB	SER	A	88	39.858	40.831	32.715	1.00	61.57	PRO
	ATOM	856	OG	SER	A	88	38.961	40.711	33.806	0.00	21.29	PRO
	ATOM	858	N	LYS	A	89	42.375	39.589	30.963	1.00	54.97	PRO
50	ATOM	859	CA	LYS	A	89	43.257	39.718	29.808	1.00	53.91	PRO
	ATOM	861	C	LYS	A	89	43.622	38.333	29.268	1.00	52.61	PRO
	ATOM	862	O	LYS	A	89	44.278	37.550	29.962	1.00	55.47	PRO
	ATOM	863	CB	LYS	A	89	44.538	40.464	30.197	1.00	54.06	PRO
	ATOM	864	CG	LYS	A	89	45.511	40.681	29.037	1.00	54.54	PRO
55	ATOM	865	CD	LYS	A	89	46.862	40.033	29.306	0.00	55.80	PRO
	ATOM	866	CE	LYS	A	89	47.962	40.694	28.491	0.00	56.05	PRO
	ATOM	867	NZ	LYS	A	89	49.319	40.380	29.020	0.00	59.27	PRO
	ATOM	871	N	VAL	A	90	43.199	38.030	28.042	1.00	47.76	PRO
	ATOM	872	CA	VAL	A	90	43.518	36.738	27.437	1.00	44.81	PRO
60	ATOM	874	C	VAL	A	90	44.516	36.896	26.295	1.00	40.57	PRO
	ATOM	875	O	VAL	A	90	44.368	37.771	25.448	1.00	42.21	PRO
	ATOM	876	CB	VAL	A	90	42.254	36.004	26.917	1.00	45.34	PRO
	ATOM	877	CG1	VAL	A	90	42.640	34.652	26.316	1.00	44.07	PRO
	ATOM	878	CG2	VAL	A	90	41.268	35.797	28.051	1.00	45.61	PRO
65	ATOM	879	N	THR	A	91	45.554	36.072	26.299	1.00	35.59	PRO
	ATOM	880	CA	THR	A	91	46.549	36.118	25.245	1.00	34.86	PRO
	ATOM	882	C	THR	A	91	46.687	34.722	24.659	1.00	33.36	PRO
	ATOM	883	O	THR	A	91	46.838	33.740	25.387	1.00	33.78	PRO
	ATOM	884	CB	THR	A	91	47.916	36.605	25.756	1.00	36.33	PRO
70	ATOM	885	OG1	THR	A	91	47.764	37.889	26.372	1.00	39.27	PRO
	ATOM	887	CG2	THR	A	91	48.905	36.732	24.599	1.00	36.30	PRO
	ATOM	888	N	THR	A	92	46.600	34.643	23.339	1.00	30.13	PRO
	ATOM	889	CA	THR	A	92	46.704	33.382	22.637	1.00	28.56	PRO
	ATOM	891	C	THR	A	92	48.083	33.285	22.005	1.00	27.85	PRO

	ATOM	892	O	THR	A	92	48.688	34.298	21.658	1.00	30.94	PRO
	ATOM	893	CB	THR	A	92	45.618	33.290	21.553	1.00	28.18	PRO
	ATOM	894	OG1	THR	A	92	44.330	33.253	22.181	1.00	26.83	PRO
	ATOM	896	CG2	THR	A	92	45.801	32.032	20.698	1.00	29.62	PRO
5	ATOM	897	N	TYR	A	93	48.612	32.072	21.940	1.00	25.36	PRO
	ATOM	898	CA	TYR	A	93	49.907	31.823	21.328	1.00	25.43	PRO
	ATOM	900	C	TYR	A	93	49.722	30.648	20.407	1.00	23.93	PRO
	ATOM	901	O	TYR	A	93	49.661	29.501	20.857	1.00	26.58	PRO
10	ATOM	902	CB	TYR	A	93	50.944	31.468	22.376	1.00	27.53	PRO
	ATOM	903	CG	TYR	A	93	51.193	32.581	23.326	1.00	30.54	PRO
	ATOM	904	CD1	TYR	A	93	52.209	33.498	23.087	1.00	32.09	PRO
	ATOM	905	CE1	TYR	A	93	52.434	34.545	23.950	1.00	35.62	PRO
	ATOM	906	CZ	TYR	A	93	51.634	34.683	25.069	1.00	35.44	PRO
	ATOM	907	OH	TYR	A	93	51.869	35.719	25.935	1.00	40.81	PRO
15	ATOM	909	CE2	TYR	A	93	50.612	33.781	25.327	1.00	33.01	PRO
	ATOM	910	CD2	TYR	A	93	50.400	32.739	24.457	1.00	30.84	PRO
	ATOM	911	N	CYS	A	94	49.603	30.936	19.120	1.00	20.96	PRO
	ATOM	912	CA	CYS	A	94	49.416	29.890	18.128	1.00	20.91	PRO
	ATOM	914	C	CYS	A	94	50.703	29.155	17.790	1.00	19.10	PRO
20	ATOM	915	O	CYS	A	94	50.684	28.159	17.071	1.00	22.95	PRO
	ATOM	916	CB	CYS	A	94	48.752	30.471	16.889	1.00	19.50	PRO
	ATOM	917	SG	CYS	A	94	47.167	31.232	17.352	1.00	23.41	PRO
	ATOM	918	N	ASN	A	95	51.814	29.639	18.332	1.00	17.20	PRO
	ATOM	919	CA	ASN	A	95	53.113	29.013	18.122	1.00	18.06	PRO
25	ATOM	921	C	ASN	A	95	53.474	28.110	19.311	1.00	17.35	PRO
	ATOM	922	O	ASN	A	95	54.599	27.601	19.401	1.00	14.81	PRO
	ATOM	923	CB	ASN	A	95	54.200	30.078	17.910	1.00	18.93	PRO
	ATOM	924	CG	ASN	A	95	54.291	31.063	19.062	1.00	24.27	PRO
	ATOM	925	OD1	ASN	A	95	53.396	31.128	19.915	1.00	24.40	PRO
30	ATOM	926	ND2	ASN	A	95	55.368	31.854	19.089	1.00	27.57	PRO
	ATOM	929	N	GLU	A	96	52.521	27.928	20.227	1.00	15.85	PRO
	ATOM	930	CA	GLU	A	96	52.735	27.083	21.396	1.00	15.92	PRO
	ATOM	932	C	GLU	A	96	51.467	26.328	21.746	1.00	13.29	PRO
	ATOM	933	O	GLU	A	96	50.402	26.638	21.235	1.00	10.25	PRO
35	ATOM	934	CB	GLU	A	96	53.201	27.921	22.591	1.00	19.58	PRO
	ATOM	935	CG	GLU	A	96	54.614	28.483	22.438	1.00	23.78	PRO
	ATOM	936	CD	GLU	A	96	55.010	29.457	23.543	1.00	26.92	PRO
	ATOM	937	OE1	GLU	A	96	54.580	29.281	24.707	1.00	28.32	PRO
	ATOM	938	OE2	GLU	A	96	55.780	30.396	23.251	1.00	29.11	PRO
40	ATOM	939	N	THR	A	97	51.594	25.321	22.607	1.00	14.64	PRO
	ATOM	940	CA	THR	A	97	50.455	24.521	23.042	1.00	12.39	PRO
	ATOM	942	C	THR	A	97	50.276	24.500	24.557	1.00	13.13	PRO
	ATOM	943	O	THR	A	97	51.190	24.840	25.307	1.00	12.88	PRO
	ATOM	944	CB	THR	A	97	50.591	23.027	22.591	1.00	12.85	PRO
45	ATOM	945	OG1	THR	A	97	51.517	22.336	23.442	1.00	10.06	PRO
	ATOM	947	CG2	THR	A	97	51.068	22.931	21.152	1.00	12.11	PRO
	ATOM	948	N	MET	A	98	49.074	24.142	24.994	1.00	11.50	PRO
	ATOM	949	CA	MET	A	98	48.803	23.942	26.412	1.00	12.81	PRO
	ATOM	951	C	MET	A	98	49.384	22.549	26.619	1.00	12.40	PRO
50	ATOM	952	O	MET	A	98	49.896	21.945	25.670	1.00	10.50	PRO
	ATOM	953	CB	MET	A	98	47.299	23.866	26.669	1.00	14.06	PRO
	ATOM	954	CG	MET	A	98	46.541	25.125	26.319	1.00	17.21	PRO
	ATOM	955	SD	MET	A	98	47.100	26.502	27.340	1.00	19.73	PRO
	ATOM	956	CE	MET	A	98	46.159	26.206	28.857	1.00	17.29	PRO
55	ATOM	957	N	THR	A	99	49.315	22.027	27.834	1.00	11.55	PRO
	ATOM	958	CA	THR	A	99	49.806	20.684	28.050	1.00	11.31	PRO
	ATOM	960	C	THR	A	99	48.873	19.755	27.289	1.00	13.23	PRO
	ATOM	961	O	THR	A	99	47.658	19.873	27.396	1.00	11.67	PRO
	ATOM	962	CB	THR	A	99	49.822	20.305	29.530	1.00	11.96	PRO
60	ATOM	963	OG1	THR	A	99	50.643	21.240	30.240	1.00	11.07	PRO
	ATOM	965	CG2	THR	A	99	50.403	18.900	29.705	1.00	13.12	PRO
	ATOM	966	N	GLY	A	100	49.456	18.875	26.478	1.00	14.32	PRO
	ATOM	967	CA	GLY	A	100	48.678	17.938	25.699	1.00	11.56	PRO
	ATOM	969	C	GLY	A	100	48.909	16.480	26.057	1.00	13.42	PRO
65	ATOM	970	O	GLY	A	100	49.724	16.145	26.923	1.00	10.42	PRO
	ATOM	971	N	TRP	A	101	48.205	15.611	25.340	1.00	10.04	PRO
	ATOM	972	CA	TRP	A	101	48.260	14.174	25.543	1.00	8.48	PRO
	ATOM	974	C	TRP	A	101	48.831	13.436	24.321	1.00	8.58	PRO
	ATOM	975	O	TRP	A	101	48.434	13.694	23.185	1.00	11.62	PRO
70	ATOM	976	CB	TRP	A	101	46.842	13.663	25.797	1.00	5.00	PRO
	ATOM	977	CG	TRP	A	101	46.160	14.285	26.963	1.00	9.26	PRO
	ATOM	978	CD1	TRP	A	101	46.013	13.735	28.195	1.00	10.17	PRO
	ATOM	979	NE1	TRP	A	101	45.226	14.538	28.980	1.00	13.72	PRO
	ATOM	980	CE2	TRP	A	101	44.857	15.644	28.267	1.00	11.47	PRO

	ATOM	981	CD2	TRP	A	101	45.432	15.525	26.988	1.00	11.30	PRO
	ATOM	983	CE3	TRP	A	101	45.199	16.536	26.051	1.00	11.78	PRO
	ATOM	984	CZ3	TRP	A	101	44.404	17.623	26.419	1.00	13.27	PRO
	ATOM	985	CH2	TRP	A	101	43.847	17.709	27.700	1.00	13.32	PRO
5	ATOM	986	CZ2	TRP	A	101	44.063	16.730	28.637	1.00	13.97	PRO
	ATOM	987	N	VAL	A	102	49.770	12.528	24.550	1.00	9.01	PRO
	ATOM	988	CA	VAL	A	102	50.335	11.725	23.469	1.00	8.68	PRO
	ATOM	990	C	VAL	A	102	50.261	10.293	23.977	1.00	10.47	PRO
	ATOM	991	O	VAL	A	102	50.499	10.043	25.157	1.00	12.42	PRO
10	ATOM	992	CB	VAL	A	102	51.822	12.110	23.109	1.00	9.92	PRO
	ATOM	993	CG1	VAL	A	102	52.756	12.038	24.342	1.00	9.24	PRO
	ATOM	994	CG2	VAL	A	102	52.337	11.192	22.028	1.00	7.11	PRO
	ATOM	995	N	HIS	A	103	49.813	9.380	23.125	1.00	7.43	PRO
	ATOM	996	CA	HIS	A	103	49.699	7.976	23.503	1.00	7.83	PRO
15	ATOM	998	C	HIS	A	103	49.738	7.146	22.245	1.00	8.94	PRO
	ATOM	999	O	HIS	A	103	49.427	7.647	21.172	1.00	8.07	PRO
	ATOM	1000	CB	HIS	A	103	48.398	7.713	24.268	1.00	7.06	PRO
	ATOM	1001	CG	HIS	A	103	47.148	7.960	23.475	1.00	8.71	PRO
	ATOM	1002	ND1	HIS	A	103	46.280	8.988	23.763	1.00	11.70	PRO
20	ATOM	1003	CE1	HIS	A	103	45.227	8.915	22.964	1.00	9.47	PRO
	ATOM	1004	NE2	HIS	A	103	45.384	7.876	22.167	1.00	11.55	PRO
	ATOM	1005	CD2	HIS	A	103	46.580	7.263	22.462	1.00	9.50	PRO
	ATOM	1008	N	ASP	A	104	50.129	5.886	22.361	1.00	10.43	PRO
	ATOM	1009	CA	ASP	A	104	50.194	5.053	21.178	1.00	11.51	PRO
25	ATOM	1011	C	ASP	A	104	48.780	4.882	20.634	1.00	13.38	PRO
	ATOM	1012	O	ASP	A	104	47.809	5.125	21.357	1.00	14.63	PRO
	ATOM	1013	CB	ASP	A	104	50.853	3.704	21.485	1.00	9.12	PRO
	ATOM	1014	CG	ASP	A	104	50.183	2.969	22.628	1.00	10.67	PRO
	ATOM	1015	OD1	ASP	A	104	48.993	2.604	22.517	1.00	7.66	PRO
30	ATOM	1016	OD2	ASP	A	104	50.865	2.731	23.639	1.00	11.93	PRO
	ATOM	1017	N	VAL	A	105	48.662	4.484	19.368	1.00	10.50	PRO
	ATOM	1018	CA	VAL	A	105	47.353	4.305	18.741	1.00	10.73	PRO
	ATOM	1020	C	VAL	A	105	46.421	3.327	19.477	1.00	11.78	PRO
	ATOM	1021	O	VAL	A	105	45.208	3.373	19.299	1.00	13.49	PRO
35	ATOM	1022	CB	VAL	A	105	47.481	3.906	17.242	1.00	8.81	PRO
	ATOM	1023	CG1	VAL	A	105	48.049	5.080	16.434	1.00	7.11	PRO
	ATOM	1024	CG2	VAL	A	105	48.367	2.680	17.084	1.00	6.75	PRO
	ATOM	1025	N	LEU	A	106	46.965	2.434	20.294	1.00	12.14	PRO
	ATOM	1026	CA	LEU	A	106	46.094	1.517	21.035	1.00	15.17	PRO
40	ATOM	1028	C	LEU	A	106	45.565	2.173	22.316	1.00	15.90	PRO
	ATOM	1029	O	LEU	A	106	44.579	1.714	22.883	1.00	14.48	PRO
	ATOM	1030	CB	LEU	A	106	46.834	0.230	21.421	1.00	13.53	PRO
	ATOM	1031	CG	LEU	A	106	47.347	-0.716	20.337	1.00	14.53	PRO
	ATOM	1032	CD1	LEU	A	106	48.250	-1.758	20.980	1.00	15.38	PRO
45	ATOM	1033	CD2	LEU	A	106	46.188	-1.393	19.623	1.00	15.17	PRO
	ATOM	1034	N	GLY	A	107	46.240	3.224	22.777	1.00	13.73	PRO
	ATOM	1035	CA	GLY	A	107	45.852	3.867	24.019	1.00	13.20	PRO
	ATOM	1037	C	GLY	A	107	46.487	3.210	25.252	1.00	13.16	PRO
	ATOM	1038	O	GLY	A	107	46.013	3.425	26.366	1.00	11.73	PRO
50	ATOM	1039	N	ARG	A	108	47.567	2.443	25.073	1.00	12.08	PRO
	ATOM	1040	CA	ARG	A	108	48.238	1.769	26.200	1.00	13.85	PRO
	ATOM	1042	C	ARG	A	108	49.150	2.725	27.001	1.00	12.72	PRO
	ATOM	1043	O	ARG	A	108	48.880	3.039	28.163	1.00	12.18	PRO
	ATOM	1044	CB	ARG	A	108	49.079	0.577	25.721	1.00	15.37	PRO
55	ATOM	1045	CG	ARG	A	108	48.400	-0.441	24.811	1.00	18.65	PRO
	ATOM	1046	CD	ARG	A	108	47.629	-1.538	25.547	1.00	18.94	PRO
	ATOM	1047	NE	ARG	A	108	46.208	-1.279	25.362	1.00	24.42	PRO
	ATOM	1048	CZ	ARG	A	108	45.366	-1.986	24.612	1.00	21.75	PRO
	ATOM	1049	NH1	ARG	A	108	45.755	-3.066	23.957	1.00	18.60	PRO
60	ATOM	1050	NH2	ARG	A	108	44.153	-1.503	24.398	1.00	26.88	PRO
	ATOM	1056	N	ASN	A	109	50.228	3.180	26.369	1.00	12.45	PRO
	ATOM	1057	CA	ASN	A	109	51.182	4.090	27.002	1.00	10.07	PRO
	ATOM	1059	C	ASN	A	109	50.866	5.533	26.651	1.00	10.87	PRO
	ATOM	1060	O	ASN	A	109	50.688	5.877	25.474	1.00	10.98	PRO
65	ATOM	1061	CB	ASN	A	109	52.610	3.727	26.598	1.00	10.13	PRO
	ATOM	1062	CG	ASN	A	109	53.023	2.342	27.106	1.00	11.35	PRO
	ATOM	1063	OD1	ASN	A	109	52.833	2.014	28.277	1.00	11.05	PRO
	ATOM	1064	ND2	ASN	A	109	53.562	1.523	26.222	1.00	12.84	PRO
	ATOM	1067	N	TRP	A	110	50.782	6.356	27.697	1.00	10.42	PRO
70	ATOM	1068	CA	TRP	A	110	50.445	7.779	27.637	1.00	8.87	PRO
	ATOM	1070	C	TRP	A	110	51.564	8.630	28.231	1.00	9.79	PRO
	ATOM	1071	O	TRP	A	110	52.360	8.150	29.027	1.00	11.31	PRO
	ATOM	1072	CB	TRP	A	110	49.190	8.052	28.488	1.00	9.08	PRO
	ATOM	1073	CG	TRP	A	110	47.894	7.531	27.942	1.00	6.98	PRO

	ATOM	1074	CD1	TRP	A	110	47.566	6.232	27.678	1.00	7.27	PRO
	ATOM	1075	NE1	TRP	A	110	46.286	6.164	27.172	1.00	7.97	PRO
	ATOM	1076	CE2	TRP	A	110	45.772	7.432	27.104	1.00	6.46	PRO
	ATOM	1077	CD2	TRP	A	110	46.755	8.314	27.592	1.00	6.64	PRO
5	ATOM	1079	CE3	TRP	A	110	46.472	9.683	27.634	1.00	6.89	PRO
	ATOM	1080	CZ3	TRP	A	110	45.232	10.118	27.205	1.00	8.17	PRO
	ATOM	1081	CH2	TRP	A	110	44.277	9.216	26.725	1.00	6.65	PRO
	ATOM	1082	CZ2	TRP	A	110	44.524	7.873	26.672	1.00	6.70	PRO
	ATOM	1083	N	ALA	A	111	51.540	9.919	27.912	1.00	7.55	PRO
10	ATOM	1084	CA	ALA	A	111	52.497	10.901	28.422	1.00	7.59	PRO
	ATOM	1086	C	ALA	A	111	51.920	12.278	28.119	1.00	9.29	PRO
	ATOM	1087	O	ALA	A	111	50.969	12.404	27.339	1.00	9.05	PRO
	ATOM	1088	CB	ALA	A	111	53.862	10.737	27.755	1.00	5.98	PRO
	ATOM	1089	N	CYS	A	112	52.453	13.297	28.781	1.00	10.40	PRO
15	ATOM	1090	CA	CYS	A	112	52.006	14.670	28.585	1.00	11.61	PRO
	ATOM	1092	C	CYS	A	112	53.122	15.383	27.844	1.00	10.85	PRO
	ATOM	1093	O	CYS	A	112	54.288	15.027	27.999	1.00	11.12	PRO
	ATOM	1094	CB	CYS	A	112	51.765	15.342	29.933	1.00	14.65	PRO
	ATOM	1095	SG	CYS	A	112	50.621	14.405	30.996	1.00	22.95	PRO
20	ATOM	1096	N	PHE	A	113	52.782	16.400	27.059	1.00	9.49	PRO
	ATOM	1097	CA	PHE	A	113	53.799	17.118	26.303	1.00	9.67	PRO
	ATOM	1099	C	PHE	A	113	53.403	18.569	26.079	1.00	11.67	PRO
	ATOM	1100	O	PHE	A	113	52.235	18.926	26.224	1.00	12.70	PRO
	ATOM	1101	CB	PHE	A	113	53.992	16.442	24.927	1.00	7.31	PRO
25	ATOM	1102	CG	PHE	A	113	52.896	16.761	23.925	1.00	7.29	PRO
	ATOM	1103	CD1	PHE	A	113	51.708	16.043	23.913	1.00	5.07	PRO
	ATOM	1104	CE1	PHE	A	113	50.705	16.331	22.992	1.00	8.05	PRO
	ATOM	1105	CZ	PHE	A	113	50.886	17.347	22.070	1.00	5.45	PRO
	ATOM	1106	CE2	PHE	A	113	52.065	18.070	22.074	1.00	7.81	PRO
30	ATOM	1107	CD2	PHE	A	113	53.063	17.776	22.997	1.00	5.00	PRO
	ATOM	1108	N	THR	A	114	54.376	19.405	25.731	1.00	9.11	PRO
	ATOM	1109	CA	THR	A	114	54.074	20.780	25.380	1.00	11.02	PRO
	ATOM	1111	C	THR	A	114	54.832	21.006	24.094	1.00	13.25	PRO
	ATOM	1112	O	THR	A	114	55.934	20.479	23.915	1.00	10.37	PRO
35	ATOM	1113	CB	THR	A	114	54.505	21.824	26.439	1.00	10.44	PRO
	ATOM	1114	OG1	THR	A	114	55.873	21.628	26.792	1.00	14.86	PRO
	ATOM	1116	CG2	THR	A	114	53.639	21.709	27.673	1.00	10.29	PRO
	ATOM	1117	N	GLY	A	115	54.218	21.742	23.177	1.00	14.85	PRO
	ATOM	1118	CA	GLY	A	115	54.862	21.991	21.903	1.00	16.44	PRO
40	ATOM	1120	C	GLY	A	115	55.134	23.457	21.644	1.00	17.04	PRO
	ATOM	1121	O	GLY	A	115	54.407	24.339	22.111	1.00	15.51	PRO
	ATOM	1122	N	LYS	A	116	56.224	23.713	20.937	1.00	17.13	PRO
	ATOM	1123	CA	LYS	A	116	56.602	25.058	20.561	1.00	21.43	PRO
	ATOM	1125	C	LYS	A	116	57.016	25.005	19.091	1.00	19.89	PRO
45	ATOM	1126	O	LYS	A	116	57.741	24.104	18.683	1.00	19.08	PRO
	ATOM	1127	CB	LYS	A	116	57.745	25.562	21.448	1.00	25.63	PRO
	ATOM	1128	CG	LYS	A	116	57.323	25.791	22.894	1.00	29.13	PRO
	ATOM	1129	CD	LYS	A	116	58.511	25.933	23.822	1.00	33.32	PRO
	ATOM	1130	CE	LYS	A	116	58.267	27.042	24.839	1.00	37.22	PRO
50	ATOM	1131	NZ	LYS	A	116	57.145	26.726	25.783	1.00	40.36	PRO
	ATOM	1135	N	LYS	A	117	56.476	25.916	18.288	1.00	20.91	PRO
	ATOM	1136	CA	LYS	A	117	56.791	25.968	16.873	1.00	24.40	PRO
	ATOM	1138	C	LYS	A	117	58.158	26.596	16.713	1.00	26.09	PRO
	ATOM	1139	O	LYS	A	117	58.390	27.699	17.183	1.00	26.20	PRO
55	ATOM	1140	CB	LYS	A	117	55.750	26.788	16.118	1.00	22.31	PRO
	ATOM	1141	CG	LYS	A	117	55.753	26.529	14.643	1.00	23.40	PRO
	ATOM	1142	CD	LYS	A	117	54.611	27.259	13.981	1.00	25.37	PRO
	ATOM	1143	CE	LYS	A	117	54.916	27.544	12.524	1.00	23.26	PRO
	ATOM	1144	NZ	LYS	A	117	53.739	28.149	11.851	1.00	24.70	PRO
60	ATOM	1148	N	VAL	A	118	59.071	25.866	16.087	1.00	29.96	PRO
	ATOM	1149	CA	VAL	A	118	60.425	26.348	15.870	1.00	33.40	PRO
	ATOM	1151	C	VAL	A	118	60.605	26.791	14.427	1.00	38.29	PRO
	ATOM	1152	O	VAL	A	118	61.654	26.567	13.823	1.00	39.93	PRO
	ATOM	1153	CB	VAL	A	118	61.470	25.270	16.240	1.00	29.67	PRO
65	ATOM	1154	CG1	VAL	A	118	61.443	25.020	17.739	0.00	39.57	PRO
	ATOM	1155	CG2	VAL	A	118	61.227	23.992	15.478	0.00	40.38	PRO
	ATOM	1156	N	GLY	A	119	59.574	27.443	13.892	1.00	41.04	PRO
	ATOM	1157	CA	GLY	A	119	59.600	27.917	12.517	1.00	44.56	PRO
	ATOM	1159	C	GLY	A	119	58.965	26.964	11.514	1.00	44.19	PRO
70	ATOM	1160	O	GLY	A	119	57.845	26.480	11.702	1.00	43.35	PRO
	ATOM	1161	C1	NB14	A5A		38.335	33.929	14.487	1.00	41.09	PRO
	ATOM	1162	C2	NB14	A5A		36.991	34.460	14.992	1.00	43.54	PRO
	ATOM	1163	C3	NB14	A5A		35.978	34.787	13.871	1.00	44.96	PRO
	ATOM	1164	C4	NB14	A5A		36.612	35.346	12.592	1.00	45.68	PRO

	ATOM	1165	C5	NB14	A5A	37.872	34.556	12.260	1.00	46.69	PRO
	ATOM	1166	C6	NB14	A5A	38.574	35.012	10.983	1.00	48.71	PRO
	ATOM	1167	C7	NB14	A5A	35.992	33.815	17.082	1.00	48.04	PRO
	ATOM	1168	C8	NB14	A5A	35.373	32.745	17.957	1.00	48.30	PRO
5	ATOM	1169	N2	NB14	A5A	36.396	33.466	15.869	1.00	45.70	PRO
	ATOM	1170	O3	NB14	A5A	35.013	35.708	14.354	1.00	47.86	PRO
	ATOM	1171	O4	NB14	A5A	35.662	35.269	11.497	1.00	44.76	PRO
	ATOM	1172	O5	NB14	A5A	38.797	34.665	13.357	1.00	41.27	PRO
	ATOM	1173	O6	NB14	A5A	39.965	35.224	11.187	1.00	53.85	PRO
10	ATOM	1174	O7	NB14	A5A	36.119	34.957	17.514	1.00	54.37	PRO
	ATOM	1188	N	LEU B	207	24.077	5.655	-5.423	1.00	35.41	CATC
	ATOM	1189	CA	LEU B	207	23.687	6.673	-4.401	1.00	37.55	CATC
	ATOM	1190	C	LEU B	207	22.283	7.181	-4.720	1.00	35.83	CATC
	ATOM	1191	O	LEU B	207	22.000	7.550	-5.860	1.00	38.45	CATC
15	ATOM	1192	CB	LEU B	207	24.688	7.830	-4.407	1.00	39.42	CATC
	ATOM	1193	CG	LEU B	207	24.816	8.702	-3.156	1.00	38.96	CATC
	ATOM	1194	CD1	LEU B	207	25.144	7.846	-1.936	1.00	38.30	CATC
	ATOM	1195	CD2	LEU B	207	25.913	9.729	-3.391	1.00	40.22	CATC
	ATOM	1199	N	PRO B	208	21.382	7.183	-3.722	1.00	34.71	CATC
20	ATOM	1200	CA	PRO B	208	19.990	7.624	-3.841	1.00	34.67	CATC
	ATOM	1201	CD	PRO B	208	21.640	6.699	-2.359	1.00	37.16	CATC
	ATOM	1202	C	PRO B	208	19.834	9.129	-4.046	1.00	34.94	CATC
	ATOM	1203	O	PRO B	208	20.760	9.906	-3.796	1.00	36.96	CATC
	ATOM	1204	CB	PRO B	208	19.372	7.197	-2.503	1.00	35.39	CATC
25	ATOM	1205	CG	PRO B	208	20.295	6.160	-1.980	1.00	36.17	CATC
	ATOM	1206	N	THR B	209	18.649	9.534	-4.495	1.00	32.56	CATC
	ATOM	1207	CA	THR B	209	18.360	10.943	-4.734	1.00	33.81	CATC
	ATOM	1209	C	THR B	209	17.801	11.539	-3.456	1.00	30.90	CATC
	ATOM	1210	O	THR B	209	17.777	12.757	-3.279	1.00	33.94	CATC
30	ATOM	1211	CB	THR B	209	17.334	11.137	-5.915	1.00	35.49	CATC
	ATOM	1212	OG1	THR B	209	15.997	11.243	-5.406	1.00	36.48	CATC
	ATOM	1214	CG2	THR B	209	17.391	9.961	-6.884	1.00	34.81	CATC
	ATOM	1215	N	SER B	210	17.417	10.651	-2.545	1.00	27.62	CATC
	ATOM	1216	CA	SER B	210	16.815	11.026	-1.285	1.00	26.07	CATC
35	ATOM	1218	C	SER B	210	17.241	10.017	-0.215	1.00	26.01	CATC
	ATOM	1219	O	SER B	210	17.426	8.838	-0.515	1.00	25.65	CATC
	ATOM	1220	CB	SER B	210	15.300	10.992	-1.446	1.00	26.92	CATC
	ATOM	1221	OG	SER B	210	14.671	11.949	-0.622	1.00	32.92	CATC
	ATOM	1223	N	TRP B	211	17.400	10.485	1.025	1.00	23.30	CATC
40	ATOM	1224	CA	TRP B	211	17.791	9.625	2.147	1.00	19.49	CATC
	ATOM	1226	C	TRP B	211	17.409	10.237	3.493	1.00	17.55	CATC
	ATOM	1227	O	TRP B	211	17.564	11.437	3.713	1.00	17.52	CATC
	ATOM	1228	CB	TRP B	211	19.289	9.348	2.133	1.00	20.08	CATC
	ATOM	1229	CG	TRP B	211	19.637	8.226	3.030	1.00	21.75	CATC
45	ATOM	1230	CD1	TRP B	211	20.030	8.311	4.336	1.00	21.08	CATC
	ATOM	1231	NE1	TRP B	211	20.197	7.050	4.855	1.00	22.02	CATC
	ATOM	1232	CE2	TRP B	211	19.920	6.121	3.887	1.00	20.58	CATC
	ATOM	1233	CD2	TRP B	211	19.565	6.827	2.718	1.00	20.10	CATC
	ATOM	1235	CE3	TRP B	211	19.233	6.103	1.563	1.00	18.91	CATC
50	ATOM	1236	CZ3	TRP B	211	19.265	4.715	1.611	1.00	19.13	CATC
	ATOM	1237	CH2	TRP B	211	19.624	4.037	2.791	1.00	17.92	CATC
	ATOM	1238	CZ2	TRP B	211	19.953	4.720	3.936	1.00	20.02	CATC
	ATOM	1239	N	ASP B	212	16.921	9.401	4.395	1.00	16.11	CATC
	ATOM	1240	CA	ASP B	212	16.502	9.867	5.704	1.00	15.35	CATC
55	ATOM	1242	C	ASP B	212	16.651	8.685	6.644	1.00	12.79	CATC
	ATOM	1243	O	ASP B	212	15.899	7.720	6.562	1.00	13.79	CATC
	ATOM	1244	CB	ASP B	212	15.039	10.334	5.641	1.00	17.39	CATC
	ATOM	1245	CG	ASP B	212	14.567	10.992	6.926	1.00	20.92	CATC
	ATOM	1246	OD1	ASP B	212	13.517	11.673	6.901	1.00	21.46	CATC
60	ATOM	1247	OD2	ASP B	212	15.227	10.829	7.973	1.00	22.37	CATC
	ATOM	1248	N	TRP B	213	17.628	8.759	7.537	1.00	10.61	CATC
	ATOM	1249	CA	TRP B	213	17.873	7.677	8.475	1.00	10.48	CATC
	ATOM	1251	C	TRP B	213	16.731	7.402	9.442	1.00	9.23	CATC
	ATOM	1252	O	TRP B	213	16.761	6.412	10.163	1.00	10.18	CATC
65	ATOM	1253	CB	TRP B	213	19.161	7.934	9.234	1.00	9.13	CATC
	ATOM	1254	CG	TRP B	213	20.351	7.533	8.456	1.00	8.82	CATC
	ATOM	1255	CD1	TRP B	213	21.300	8.353	7.925	1.00	8.16	CATC
	ATOM	1256	NE1	TRP B	213	22.285	7.608	7.326	1.00	7.66	CATC
	ATOM	1257	CE2	TRP B	213	21.977	6.281	7.456	1.00	5.00	CATC
70	ATOM	1258	CD2	TRP B	213	20.758	6.200	8.162	1.00	5.00	CATC
	ATOM	1260	CE3	TRP B	213	20.215	4.948	8.420	1.00	5.17	CATC
	ATOM	1261	CZ3	TRP B	213	20.893	3.823	7.976	1.00	5.00	CATC
	ATOM	1262	CH2	TRP B	213	22.104	3.930	7.279	1.00	5.00	CATC
	ATOM	1263	CZ2	TRP B	213	22.663	5.150	7.012	1.00	5.01	CATC

	ATOM	1264	N	ARG	B	214	15.744	8.293	9.476	1.00	12.77	CATC
	ATOM	1265	CA	ARG	B	214	14.568	8.120	10.333	1.00	15.48	CATC
	ATOM	1267	C	ARG	B	214	13.555	7.259	9.592	1.00	21.35	CATC
5	ATOM	1268	O	ARG	B	214	12.581	6.789	10.188	1.00	20.64	CATC
	ATOM	1269	CB	ARG	B	214	13.910	9.467	10.662	1.00	12.77	CATC
	ATOM	1270	CG	ARG	B	214	14.783	10.446	11.428	1.00	16.26	CATC
	ATOM	1271	CD	ARG	B	214	14.122	11.813	11.494	1.00	16.75	CATC
	ATOM	1272	NE	ARG	B	214	13.786	12.319	10.163	1.00	20.08	CATC
	ATOM	1273	CZ	ARG	B	214	13.206	13.493	9.923	1.00	20.79	CATC
10	ATOM	1274	NH1	ARG	B	214	12.883	14.303	10.926	1.00	18.83	CATC
	ATOM	1275	NH2	ARG	B	214	12.961	13.862	8.675	1.00	20.89	CATC
	ATOM	1281	N	ASN	B	215	13.769	7.069	8.286	1.00	21.96	CATC
	ATOM	1282	CA	ASN	B	215	12.850	6.270	7.485	1.00	23.17	CATC
	ATOM	1284	C	ASN	B	215	13.524	5.543	6.341	1.00	21.46	CATC
15	ATOM	1285	O	ASN	B	215	13.532	6.023	5.217	1.00	23.60	CATC
	ATOM	1286	CB	ASN	B	215	11.717	7.146	6.937	1.00	24.69	CATC
	ATOM	1287	CG	ASN	B	215	10.601	6.330	6.288	1.00	27.21	CATC
	ATOM	1288	OD1	ASN	B	215	10.678	5.100	6.189	1.00	27.55	CATC
	ATOM	1289	ND2	ASN	B	215	9.561	7.015	5.837	1.00	26.05	CATC
20	ATOM	1292	N	VAL	B	216	14.168	4.427	6.635	1.00	23.82	CATC
	ATOM	1293	CA	VAL	B	216	14.766	3.655	5.571	1.00	25.75	CATC
	ATOM	1295	C	VAL	B	216	13.841	2.457	5.438	1.00	31.10	CATC
	ATOM	1296	O	VAL	B	216	13.926	1.466	6.169	1.00	29.88	CATC
	ATOM	1297	CB	VAL	B	216	16.276	3.339	5.793	1.00	23.22	CATC
25	ATOM	1298	CG1	VAL	B	216	16.728	3.815	7.123	1.00	22.69	CATC
	ATOM	1299	CG2	VAL	B	216	16.593	1.880	5.561	1.00	24.78	CATC
	ATOM	1300	N	HIS	B	217	12.817	2.698	4.623	1.00	35.84	CATC
	ATOM	1301	CA	HIS	B	217	11.759	1.745	4.314	1.00	37.37	CATC
	ATOM	1303	C	HIS	B	217	10.971	1.319	5.540	1.00	35.86	CATC
30	ATOM	1304	O	HIS	B	217	10.797	0.135	5.819	1.00	37.42	CATC
	ATOM	1305	CB	HIS	B	217	12.313	0.576	3.500	1.00	41.03	CATC
	ATOM	1306	CG	HIS	B	217	12.920	1.010	2.200	1.00	43.81	CATC
	ATOM	1307	ND1	HIS	B	217	12.162	1.477	1.144	1.00	45.37	CATC
	ATOM	1308	CE1	HIS	B	217	12.962	1.893	0.178	1.00	45.12	CATC
35	ATOM	1309	NE2	HIS	B	217	14.212	1.705	0.565	1.00	44.46	CATC
	ATOM	1310	CD2	HIS	B	217	14.214	1.151	1.822	1.00	44.41	CATC
	ATOM	1313	N	GLY	B	218	10.499	2.327	6.267	1.00	35.22	CATC
	ATOM	1314	CA	GLY	B	218	9.705	2.104	7.461	1.00	35.12	CATC
40	ATOM	1316	C	GLY	B	218	10.453	2.161	8.778	1.00	34.41	CATC
	ATOM	1317	O	GLY	B	218	9.913	2.639	9.774	1.00	37.73	CATC
	ATOM	1318	N	ILE	B	219	11.705	1.713	8.781	1.00	31.31	CATC
	ATOM	1319	CA	ILE	B	219	12.492	1.677	10.001	1.00	28.26	CATC
	ATOM	1321	C	ILE	B	219	13.221	2.968	10.365	1.00	24.77	CATC
45	ATOM	1322	O	ILE	B	219	13.790	3.652	9.514	1.00	20.64	CATC
	ATOM	1323	CB	ILE	B	219	13.486	0.504	9.968	1.00	32.11	CATC
	ATOM	1324	CG2	ILE	B	219	14.167	0.340	11.320	1.00	31.56	CATC
	ATOM	1325	CG1	ILE	B	219	12.742	-0.788	9.627	1.00	32.96	CATC
	ATOM	1326	CD1	ILE	B	219	13.622	-2.018	9.654	1.00	37.90	CATC
50	ATOM	1327	N	ASN	B	220	13.193	3.282	11.654	1.00	22.85	CATC
	ATOM	1328	CA	ASN	B	220	13.856	4.462	12.198	1.00	21.43	CATC
	ATOM	1330	C	ASN	B	220	15.153	4.020	12.866	1.00	20.76	CATC
	ATOM	1331	O	ASN	B	220	15.181	2.982	13.533	1.00	22.03	CATC
	ATOM	1332	CB	ASN	B	220	12.954	5.143	13.234	1.00	19.87	CATC
55	ATOM	1333	CG	ASN	B	220	13.658	6.262	13.974	1.00	18.82	CATC
	ATOM	1334	OD1	ASN	B	220	14.256	7.134	13.361	1.00	19.14	CATC
	ATOM	1335	ND2	ASN	B	220	13.613	6.224	15.302	1.00	17.87	CATC
	ATOM	1338	N	PHE	B	221	16.217	4.802	12.687	1.00	18.41	CATC
	ATOM	1339	CA	PHE	B	221	17.514	4.487	13.289	1.00	17.62	CATC
	ATOM	1341	C	PHE	B	221	18.084	5.666	14.079	1.00	17.47	CATC
60	ATOM	1342	O	PHE	B	221	19.219	5.617	14.536	1.00	19.48	CATC
	ATOM	1343	CB	PHE	B	221	18.516	4.086	12.208	1.00	17.77	CATC
	ATOM	1344	CG	PHE	B	221	18.255	2.741	11.598	1.00	18.69	CATC
	ATOM	1345	CD1	PHE	B	221	18.706	1.585	12.220	1.00	16.18	CATC
	ATOM	1346	CE1	PHE	B	221	18.493	0.339	11.645	1.00	18.21	CATC
65	ATOM	1347	CZ	PHE	B	221	17.822	0.240	10.435	1.00	17.82	CATC
	ATOM	1348	CE2	PHE	B	221	17.362	1.387	9.798	1.00	19.73	CATC
	ATOM	1349	CD2	PHE	B	221	17.578	2.631	10.380	1.00	20.47	CATC
	ATOM	1350	N	VAL	B	222	17.310	6.735	14.218	1.00	15.28	CATC
70	ATOM	1351	CA	VAL	B	222	17.764	7.913	14.950	1.00	13.78	CATC
	ATOM	1353	C	VAL	B	222	17.125	7.964	16.341	1.00	15.79	CATC
	ATOM	1354	O	VAL	B	222	15.922	7.736	16.488	1.00	17.16	CATC
	ATOM	1355	CB	VAL	B	222	17.436	9.197	14.160	1.00	10.48	CATC
	ATOM	1356	CG1	VAL	B	222	17.963	10.420	14.872	1.00	6.26	CATC
	ATOM	1357	CG2	VAL	B	222	18.028	9.097	12.777	1.00	8.14	CATC

	ATOM	1358	N	SER	B	223	17.941	8.220	17.362	1.00	16.62	CATC
	ATOM	1359	CA	SER	B	223	17.452	8.306	18.742	1.00	14.07	CATC
	ATOM	1361	C	SER	B	223	16.652	9.594	18.869	1.00	16.47	CATC
5	ATOM	1362	O	SER	B	223	16.801	10.501	18.043	1.00	14.40	CATC
	ATOM	1363	CB	SER	B	223	18.615	8.284	19.743	1.00	10.35	CATC
	ATOM	1364	OG	SER	B	223	19.438	9.411	19.590	1.00	9.21	CATC
	ATOM	1366	N	PRO	B	224	15.841	9.717	19.935	1.00	15.95	CATC
	ATOM	1367	CA	PRO	B	224	15.006	10.895	20.169	1.00	15.09	CATC
10	ATOM	1368	CD	PRO	B	224	15.648	8.735	21.017	1.00	16.72	CATC
	ATOM	1369	C	PRO	B	224	15.719	12.234	20.258	1.00	13.50	CATC
	ATOM	1370	O	PRO	B	224	16.898	12.313	20.598	1.00	16.71	CATC
	ATOM	1371	CB	PRO	B	224	14.296	10.557	21.486	1.00	16.14	CATC
	ATOM	1372	CG	PRO	B	224	14.241	9.052	21.474	1.00	17.16	CATC
	ATOM	1373	N	VAL	B	225	14.982	13.279	19.901	1.00	11.88	CATC
15	ATOM	1374	CA	VAL	B	225	15.459	14.647	19.966	1.00	14.21	CATC
	ATOM	1376	C	VAL	B	225	15.515	14.964	21.460	1.00	15.70	CATC
	ATOM	1377	O	VAL	B	225	14.659	14.509	22.218	1.00	18.39	CATC
	ATOM	1378	CB	VAL	B	225	14.440	15.608	19.286	1.00	14.15	CATC
	ATOM	1379	CG1	VAL	B	225	14.809	17.057	19.526	1.00	15.85	CATC
20	ATOM	1380	CG2	VAL	B	225	14.376	15.332	17.794	1.00	14.58	CATC
	ATOM	1381	N	ARG	B	226	16.534	15.709	21.877	1.00	14.45	CATC
	ATOM	1382	CA	ARG	B	226	16.694	16.104	23.267	1.00	13.81	CATC
	ATOM	1384	C	ARG	B	226	16.876	17.615	23.341	1.00	14.27	CATC
	ATOM	1385	O	ARG	B	226	16.977	18.289	22.318	1.00	14.54	CATC
25	ATOM	1386	CB	ARG	B	226	17.909	15.407	23.870	1.00	14.51	CATC
	ATOM	1387	CG	ARG	B	226	17.795	13.908	23.893	1.00	15.46	CATC
	ATOM	1388	CD	ARG	B	226	18.913	13.301	24.702	1.00	17.21	CATC
	ATOM	1389	NE	ARG	B	226	18.806	13.701	26.097	1.00	16.11	CATC
	ATOM	1390	CZ	ARG	B	226	19.595	13.256	27.070	1.00	18.28	CATC
30	ATOM	1391	NH1	ARG	B	226	19.409	13.687	28.317	1.00	18.46	CATC
	ATOM	1392	NH2	ARG	B	226	20.561	12.373	26.806	1.00	15.19	CATC
	ATOM	1398	N	ASN	B	227	16.900	18.156	24.552	1.00	16.00	CATC
	ATOM	1399	CA	ASN	B	227	17.103	19.588	24.728	1.00	17.60	CATC
	ATOM	1401	C	ASN	B	227	18.380	19.812	25.535	1.00	18.96	CATC
35	ATOM	1402	O	ASN	B	227	18.522	19.295	26.640	1.00	18.31	CATC
	ATOM	1403	CB	ASN	B	227	15.906	20.210	25.452	1.00	17.08	CATC
	ATOM	1404	CG	ASN	B	227	15.823	21.710	25.262	1.00	18.43	CATC
	ATOM	1405	OD1	ASN	B	227	16.844	22.397	25.129	1.00	16.33	CATC
	ATOM	1406	ND2	ASN	B	227	14.602	22.231	25.237	1.00	17.90	CATC
40	ATOM	1409	N	GLN	B	228	19.310	20.590	24.993	1.00	18.34	CATC
	ATOM	1410	CA	GLN	B	228	20.555	20.860	25.696	1.00	17.56	CATC
	ATOM	1412	C	GLN	B	228	20.357	21.885	26.815	1.00	16.81	CATC
	ATOM	1413	O	GLN	B	228	21.265	22.126	27.619	1.00	17.09	CATC
	ATOM	1414	CB	GLN	B	228	21.632	21.336	24.715	1.00	17.89	CATC
45	ATOM	1415	CG	GLN	B	228	21.371	22.682	24.068	1.00	16.22	CATC
	ATOM	1416	CD	GLN	B	228	22.351	22.973	22.948	1.00	18.66	CATC
	ATOM	1417	OE1	GLN	B	228	23.400	23.556	23.168	1.00	20.65	CATC
	ATOM	1418	NE2	GLN	B	228	22.005	22.571	21.742	1.00	19.08	CATC
	ATOM	1421	N	ALA	B	229	19.178	22.501	26.849	1.00	17.10	CATC
50	ATOM	1422	CA	ALA	B	229	18.845	23.498	27.867	1.00	16.76	CATC
	ATOM	1424	C	ALA	B	229	19.778	24.679	27.712	1.00	18.49	CATC
	ATOM	1425	O	ALA	B	229	20.280	24.904	26.612	1.00	18.50	CATC
	ATOM	1426	CB	ALA	B	229	18.967	22.895	29.263	1.00	18.06	CATC
	ATOM	1427	N	SER	B	230	20.067	25.391	28.804	1.00	16.59	CATC
55	ATOM	1428	CA	SER	B	230	20.916	26.572	28.720	1.00	19.03	CATC
	ATOM	1430	C	SER	B	230	22.432	26.375	28.821	1.00	19.36	CATC
	ATOM	1431	O	SER	B	230	23.162	27.336	29.004	1.00	26.98	CATC
	ATOM	1432	CB	SER	B	230	20.441	27.660	29.699	1.00	17.01	CATC
	ATOM	1433	OG	SER	B	230	20.404	27.188	31.030	1.00	18.05	CATC
60	ATOM	1435	N	CYS	B	231	22.907	25.148	28.650	1.00	17.39	CATC
	ATOM	1436	CA	CYS	B	231	24.347	24.851	28.693	1.00	15.81	CATC
	ATOM	1438	C	CYS	B	231	24.888	24.793	27.250	1.00	14.80	CATC
	ATOM	1439	O	CYS	B	231	24.209	24.276	26.375	1.00	15.45	CATC
	ATOM	1440	CB	CYS	B	231	24.514	23.509	29.391	1.00	16.16	CATC
65	ATOM	1441	SG	CYS	B	231	26.124	22.700	29.276	1.00	17.78	CATC
	ATOM	1442	N	GLY	B	232	26.068	25.354	26.982	1.00	15.72	CATC
	ATOM	1443	CA	GLY	B	232	26.632	25.321	25.623	1.00	13.55	CATC
	ATOM	1445	C	GLY	B	232	27.183	23.939	25.327	1.00	14.45	CATC
	ATOM	1446	O	GLY	B	232	28.365	23.756	25.015	1.00	13.62	CATC
70	ATOM	1447	N	SER	B	233	26.253	22.996	25.314	1.00	11.89	CATC
	ATOM	1448	CA	SER	B	233	26.478	21.573	25.193	1.00	13.70	CATC
	ATOM	1450	C	SER	B	233	26.280	20.959	23.789	1.00	12.38	CATC
	ATOM	1451	O	SER	B	233	26.430	19.748	23.619	1.00	10.73	CATC
	ATOM	1452	CB	SER	B	233	25.479	20.922	26.169	1.00	12.65	CATC

	ATOM	1453	OG	SER	B	233	25.907	19.657	26.591	1.00	24.08	CATC
	ATOM	1455	N	CYS	B	234	25.948	21.774	22.792	1.00	12.83	CATC
	ATOM	1456	CA	CYS	B	234	25.672	21.254	21.451	1.00	14.17	CATC
5	ATOM	1458	C	CYS	B	234	26.622	20.180	20.932	1.00	10.80	CATC
	ATOM	1459	O	CYS	B	234	26.177	19.117	20.529	1.00	11.31	CATC
	ATOM	1460	CB	CYS	B	234	25.534	22.393	20.433	1.00	15.09	CATC
	ATOM	1461	SG	CYS	B	234	26.961	23.486	20.279	1.00	18.34	CATC
	ATOM	1462	N	TYR	B	235	27.921	20.430	21.014	1.00	10.59	CATC
10	ATOM	1463	CA	TYR	B	235	28.930	19.486	20.546	1.00	9.88	CATC
	ATOM	1465	C	TYR	B	235	28.769	18.101	21.166	1.00	10.40	CATC
	ATOM	1466	O	TYR	B	235	28.988	17.078	20.505	1.00	8.10	CATC
	ATOM	1467	CB	TYR	B	235	30.334	20.030	20.837	1.00	12.79	CATC
	ATOM	1468	CG	TYR	B	235	30.682	20.069	22.315	1.00	14.40	CATC
	ATOM	1469	CD1	TYR	B	235	30.223	21.105	23.136	1.00	13.52	CATC
15	ATOM	1470	CE1	TYR	B	235	30.500	21.116	24.507	1.00	14.14	CATC
	ATOM	1471	CZ	TYR	B	235	31.245	20.090	25.054	1.00	13.54	CATC
	ATOM	1472	OH	TYR	B	235	31.503	20.080	26.392	1.00	11.86	CATC
	ATOM	1474	CE2	TYR	B	235	31.720	19.054	24.260	1.00	14.63	CATC
	ATOM	1475	CD2	TYR	B	235	31.434	19.049	22.899	1.00	14.11	CATC
20	ATOM	1476	N	SER	B	236	28.409	18.069	22.443	1.00	11.99	CATC
	ATOM	1477	CA	SER	B	236	28.236	16.803	23.144	1.00	10.44	CATC
	ATOM	1479	C	SER	B	236	26.966	16.104	22.653	1.00	9.05	CATC
	ATOM	1480	O	SER	B	236	26.966	14.899	22.404	1.00	9.19	CATC
	ATOM	1481	CB	SER	B	236	28.187	17.036	24.659	1.00	11.73	CATC
25	ATOM	1482	OG	SER	B	236	28.008	15.815	25.351	1.00	11.25	CATC
	ATOM	1484	N	PHE	B	237	25.891	16.862	22.488	1.00	6.79	CATC
	ATOM	1485	CA	PHE	B	237	24.651	16.285	21.989	1.00	11.74	CATC
	ATOM	1487	C	PHE	B	237	24.822	15.751	20.555	1.00	12.00	CATC
	ATOM	1488	O	PHE	B	237	24.400	14.634	20.249	1.00	15.74	CATC
30	ATOM	1489	CB	PHE	B	237	23.495	17.301	22.101	1.00	10.19	CATC
	ATOM	1490	CG	PHE	B	237	22.869	17.355	23.486	1.00	11.17	CATC
	ATOM	1491	CD1	PHE	B	237	23.483	18.058	24.523	1.00	9.76	CATC
	ATOM	1492	CE1	PHE	B	237	22.933	18.079	25.797	1.00	8.66	CATC
	ATOM	1493	CZ	PHE	B	237	21.754	17.395	26.053	1.00	7.99	CATC
35	ATOM	1494	CE2	PHE	B	237	21.125	16.692	25.034	1.00	10.54	CATC
	ATOM	1495	CD2	PHE	B	237	21.682	16.673	23.758	1.00	10.25	CATC
	ATOM	1496	N	ALA	B	238	25.487	16.518	19.693	1.00	12.93	CATC
	ATOM	1497	CA	ALA	B	238	25.726	16.095	18.305	1.00	11.85	CATC
	ATOM	1499	C	ALA	B	238	26.549	14.816	18.329	1.00	11.52	CATC
40	ATOM	1500	O	ALA	B	238	26.219	13.829	17.656	1.00	12.57	CATC
	ATOM	1501	CB	ALA	B	238	26.480	17.190	17.533	1.00	8.89	CATC
	ATOM	1502	N	SER	B	239	27.578	14.815	19.171	1.00	10.09	CATC
	ATOM	1503	CA	SER	B	239	28.447	13.660	19.294	1.00	9.00	CATC
	ATOM	1505	C	SER	B	239	27.690	12.423	19.716	1.00	11.54	CATC
45	ATOM	1506	O	SER	B	239	27.811	11.382	19.060	1.00	12.60	CATC
	ATOM	1507	CB	SER	B	239	29.580	13.927	20.284	1.00	9.33	CATC
	ATOM	1508	OG	SER	B	239	30.513	14.874	19.785	1.00	11.64	CATC
	ATOM	1510	N	MET	B	240	26.921	12.518	20.807	1.00	10.40	CATC
	ATOM	1511	CA	MET	B	240	26.166	11.359	21.301	1.00	7.87	CATC
50	ATOM	1513	C	MET	B	240	25.159	10.931	20.246	1.00	5.81	CATC
	ATOM	1514	O	MET	B	240	24.980	9.739	20.000	1.00	8.32	CATC
	ATOM	1515	CB	MET	B	240	25.416	11.664	22.612	1.00	5.00	CATC
	ATOM	1516	CG	MET	B	240	26.296	12.113	23.792	1.00	7.70	CATC
	ATOM	1517	SD	MET	B	240	27.651	11.001	24.108	1.00	13.87	CATC
55	ATOM	1518	CE	MET	B	240	29.020	11.943	23.529	1.00	11.61	CATC
	ATOM	1519	N	GLY	B	241	24.517	11.910	19.613	1.00	7.40	CATC
	ATOM	1520	CA	GLY	B	241	23.524	11.611	18.590	1.00	8.62	CATC
	ATOM	1522	C	GLY	B	241	24.097	10.768	17.465	1.00	10.65	CATC
	ATOM	1523	O	GLY	B	241	23.471	9.810	16.995	1.00	9.44	CATC
60	ATOM	1524	N	MET	B	242	25.287	11.136	17.013	1.00	6.19	CATC
	ATOM	1525	CA	MET	B	242	25.928	10.373	15.960	1.00	10.13	CATC
	ATOM	1527	C	MET	B	242	26.173	8.937	16.430	1.00	11.90	CATC
	ATOM	1528	O	MET	B	242	25.769	7.975	15.763	1.00	14.58	CATC
	ATOM	1529	CB	MET	B	242	27.259	11.005	15.570	1.00	5.00	CATC
65	ATOM	1530	CG	MET	B	242	28.108	10.073	14.726	1.00	10.33	CATC
	ATOM	1531	SD	MET	B	242	29.406	10.911	13.823	1.00	13.34	CATC
	ATOM	1532	CE	MET	B	242	30.352	11.675	15.111	1.00	11.84	CATC
	ATOM	1533	N	LEU	B	243	26.828	8.788	17.577	1.00	8.57	CATC
	ATOM	1534	CA	LEU	B	243	27.135	7.453	18.068	1.00	9.49	CATC
70	ATOM	1536	C	LEU	B	243	25.902	6.604	18.352	1.00	9.81	CATC
	ATOM	1537	O	LEU	B	243	25.915	5.403	18.108	1.00	10.39	CATC
	ATOM	1538	CB	LEU	B	243	28.063	7.527	19.290	1.00	8.98	CATC
	ATOM	1539	CG	LEU	B	243	29.372	8.279	18.998	1.00	10.79	CATC
	ATOM	1540	CD1	LEU	B	243	30.336	8.221	20.168	1.00	9.13	CATC

	ATOM	1541	CD2	LEU	B	243	30.044	7.664	17.774	1.00	12.00	CATC
	ATOM	1542	N	GLU	B	244	24.827	7.226	18.833	1.00	10.78	CATC
	ATOM	1543	CA	GLU	B	244	23.608	6.488	19.147	1.00	12.49	CATC
	ATOM	1545	C	GLU	B	244	22.925	5.939	17.890	1.00	10.79	CATC
5	ATOM	1546	O	GLU	B	244	22.467	4.794	17.873	1.00	11.60	CATC
	ATOM	1547	CB	GLU	B	244	22.633	7.366	19.931	1.00	13.93	CATC
	ATOM	1548	CG	GLU	B	244	23.076	7.694	21.357	1.00	14.47	CATC
	ATOM	1549	CD	GLU	B	244	22.302	8.869	21.948	1.00	17.29	CATC
	ATOM	1550	OE1	GLU	B	244	21.544	9.526	21.200	1.00	15.11	CATC
10	ATOM	1551	OE2	GLU	B	244	22.449	9.149	23.157	1.00	15.95	CATC
	ATOM	1552	N	ALA	B	245	22.852	6.750	16.840	1.00	7.10	CATC
	ATOM	1553	CA	ALA	B	245	22.244	6.292	15.589	1.00	5.58	CATC
	ATOM	1555	C	ALA	B	245	23.107	5.213	14.931	1.00	5.00	CATC
	ATOM	1556	O	ALA	B	245	22.603	4.167	14.518	1.00	10.05	CATC
15	ATOM	1557	CB	ALA	B	245	22.026	7.475	14.634	1.00	6.20	CATC
	ATOM	1558	N	ARG	B	246	24.421	5.429	14.897	1.00	7.15	CATC
	ATOM	1559	CA	ARG	B	246	25.318	4.446	14.294	1.00	6.37	CATC
	ATOM	1561	C	ARG	B	246	25.315	3.106	15.008	1.00	9.84	CATC
	ATOM	1562	O	ARG	B	246	25.495	2.066	14.376	1.00	9.66	CATC
20	ATOM	1563	CB	ARG	B	246	26.737	5.001	14.159	1.00	5.10	CATC
	ATOM	1564	CG	ARG	B	246	26.841	6.014	13.014	1.00	5.93	CATC
	ATOM	1565	CD	ARG	B	246	28.213	6.651	12.909	1.00	5.67	CATC
	ATOM	1566	NE	ARG	B	246	28.257	7.573	11.779	1.00	5.78	CATC
	ATOM	1567	CZ	ARG	B	246	29.258	7.656	10.904	1.00	8.12	CATC
25	ATOM	1568	NH1	ARG	B	246	30.336	6.888	11.018	1.00	5.90	CATC
	ATOM	1569	NH2	ARG	B	246	29.129	8.441	9.849	1.00	5.37	CATC
	ATOM	1575	N	ILE	B	247	25.123	3.115	16.323	1.00	10.56	CATC
	ATOM	1576	CA	ILE	B	247	25.049	1.860	17.069	1.00	11.54	CATC
	ATOM	1578	C	ILE	B	247	23.739	1.185	16.651	1.00	11.89	CATC
30	ATOM	1579	O	ILE	B	247	23.687	-0.034	16.467	1.00	13.17	CATC
	ATOM	1580	CB	ILE	B	247	25.064	2.079	18.607	1.00	11.95	CATC
	ATOM	1581	CG2	ILE	B	247	24.584	0.808	19.316	1.00	6.57	CATC
	ATOM	1582	CG1	ILE	B	247	26.486	2.432	19.070	1.00	13.09	CATC
	ATOM	1583	CD1	ILE	B	247	26.575	2.954	20.518	1.00	15.02	CATC
35	ATOM	1584	N	ARG	B	248	22.696	1.979	16.440	1.00	11.89	CATC
	ATOM	1585	CA	ARG	B	248	21.420	1.458	15.995	1.00	13.89	CATC
	ATOM	1587	C	ARG	B	248	21.526	0.782	14.630	1.00	13.65	CATC
	ATOM	1588	O	ARG	B	248	21.087	-0.362	14.467	1.00	12.56	CATC
	ATOM	1589	CB	ARG	B	248	20.379	2.566	15.993	1.00	17.34	CATC
40	ATOM	1590	CG	ARG	B	248	19.973	2.972	17.385	1.00	20.16	CATC
	ATOM	1591	CD	ARG	B	248	18.818	3.947	17.425	1.00	22.94	CATC
	ATOM	1592	NE	ARG	B	248	18.770	4.523	18.763	1.00	28.05	CATC
	ATOM	1593	CZ	ARG	B	248	17.664	4.857	19.429	1.00	31.06	CATC
	ATOM	1594	NH1	ARG	B	248	17.779	5.356	20.655	1.00	28.89	CATC
45	ATOM	1595	NH2	ARG	B	248	16.455	4.742	18.861	1.00	27.79	CATC
	ATOM	1601	N	ILE	B	249	22.042	1.495	13.625	1.00	12.72	CATC
	ATOM	1602	CA	ILE	B	249	22.260	0.887	12.315	1.00	13.99	CATC
	ATOM	1604	C	ILE	B	249	23.119	-0.377	12.391	1.00	14.08	CATC
	ATOM	1605	O	ILE	B	249	22.754	-1.385	11.803	1.00	13.85	CATC
50	ATOM	1606	CB	ILE	B	249	22.973	1.861	11.339	1.00	15.95	CATC
	ATOM	1607	CG2	ILE	B	249	23.279	1.166	10.022	1.00	17.16	CATC
	ATOM	1608	CG1	ILE	B	249	22.126	3.116	11.158	1.00	15.62	CATC
	ATOM	1609	CD1	ILE	B	249	22.936	4.224	10.565	1.00	20.91	CATC
	ATOM	1610	N	LEU	B	250	24.249	-0.267	13.071	1.00	13.73	CATC
55	ATOM	1611	CA	LEU	B	250	25.192	-1.383	13.192	1.00	14.68	CATC
	ATOM	1613	C	LEU	B	250	24.584	-2.638	13.734	1.00	15.78	CATC
	ATOM	1614	O	LEU	B	250	24.963	-3.734	13.333	1.00	21.04	CATC
	ATOM	1615	CB	LEU	B	250	26.372	-0.992	14.081	1.00	14.51	CATC
	ATOM	1616	CG	LEU	B	250	27.486	-0.143	13.465	1.00	15.82	CATC
60	ATOM	1617	CD1	LEU	B	250	28.454	0.306	14.539	1.00	16.57	CATC
	ATOM	1618	CD2	LEU	B	250	28.211	-0.945	12.374	1.00	12.06	CATC
	ATOM	1619	N	THR	B	251	23.665	-2.494	14.681	1.00	14.84	CATC
	ATOM	1620	CA	THR	B	251	23.034	-3.623	15.343	1.00	13.81	CATC
	ATOM	1622	C	THR	B	251	21.607	-3.823	14.858	1.00	15.74	CATC
65	ATOM	1623	O	THR	B	251	20.855	-4.620	15.424	1.00	13.36	CATC
	ATOM	1624	CB	THR	B	251	22.988	-3.386	16.858	1.00	13.72	CATC
	ATOM	1625	OG1	THR	B	251	22.132	-2.263	17.134	1.00	13.72	CATC
	ATOM	1627	CG2	THR	B	251	24.383	-3.078	17.373	1.00	12.74	CATC
	ATOM	1628	N	ASN	B	252	21.225	-3.056	13.845	1.00	16.10	CATC
70	ATOM	1629	CA	ASN	B	252	19.884	-3.118	13.283	1.00	16.48	CATC
	ATOM	1631	C	ASN	B	252	18.818	-2.923	14.369	1.00	14.46	CATC
	ATOM	1632	O	ASN	B	252	17.880	-3.707	14.493	1.00	13.86	CATC
	ATOM	1633	CB	ASN	B	252	19.686	-4.445	12.551	1.00	19.53	CATC
	ATOM	1634	CG	ASN	B	252	18.425	-4.466	11.720	1.00	19.75	CATC

	ATOM	1635	OD1	ASN	B	252	18.055	-3.459	11.113	1.00	19.15	CATC
	ATOM	1636	ND2	ASN	B	252	17.745	-5.607	11.704	1.00	21.66	CATC
	ATOM	1639	N	ASN	B	253	18.986	-1.864	15.152	1.00	16.70	CATC
	ATOM	1640	CA	ASN	B	253	18.081	-1.506	16.245	1.00	19.16	CATC
5	ATOM	1642	C	ASN	B	253	18.015	-2.534	17.378	1.00	18.61	CATC
	ATOM	1643	O	ASN	B	253	17.153	-2.461	18.246	1.00	17.15	CATC
	ATOM	1644	CB	ASN	B	253	16.677	-1.174	15.723	1.00	19.20	CATC
	ATOM	1645	CG	ASN	B	253	16.624	0.157	15.017	1.00	20.51	CATC
	ATOM	1646	OD1	ASN	B	253	17.294	1.108	15.413	1.00	21.99	CATC
10	ATOM	1647	ND2	ASN	B	253	15.842	0.230	13.950	1.00	21.04	CATC
	ATOM	1650	N	SER	B	254	18.952	-3.472	17.379	1.00	19.62	CATC
	ATOM	1651	CA	SER	B	254	19.027	-4.475	18.426	1.00	18.28	CATC
	ATOM	1653	C	SER	B	254	19.491	-3.800	19.720	1.00	18.41	CATC
	ATOM	1654	O	SER	B	254	19.161	-4.254	20.819	1.00	20.85	CATC
15	ATOM	1655	CB	SER	B	254	20.029	-5.547	18.035	1.00	20.31	CATC
	ATOM	1656	OG	SER	B	254	19.808	-6.704	18.798	1.00	29.88	CATC
	ATOM	1658	N	GLN	B	255	20.334	-2.777	19.582	1.00	13.36	CATC
	ATOM	1659	CA	GLN	B	255	20.827	-2.008	20.722	1.00	12.52	CATC
	ATOM	1661	C	GLN	B	255	20.427	-0.577	20.463	1.00	14.36	CATC
20	ATOM	1662	O	GLN	B	255	20.699	-0.046	19.389	1.00	12.84	CATC
	ATOM	1663	CB	GLN	B	255	22.342	-2.080	20.828	1.00	9.56	CATC
	ATOM	1664	CG	GLN	B	255	22.853	-3.389	21.339	1.00	10.10	CATC
	ATOM	1665	CD	GLN	B	255	24.352	-3.480	21.282	1.00	9.00	CATC
	ATOM	1666	OE1	GLN	B	255	25.069	-2.562	21.688	1.00	13.15	CATC
25	ATOM	1667	NE2	GLN	B	255	24.842	-4.581	20.753	1.00	11.86	CATC
	ATOM	1670	N	THR	B	256	19.791	0.054	21.440	1.00	14.88	CATC
	ATOM	1671	CA	THR	B	256	19.351	1.428	21.271	1.00	16.81	CATC
	ATOM	1673	C	THR	B	256	19.749	2.277	22.461	1.00	16.02	CATC
	ATOM	1674	O	THR	B	256	18.930	3.025	22.984	1.00	16.87	CATC
30	ATOM	1675	CB	THR	B	256	17.822	1.483	21.148	1.00	18.46	CATC
	ATOM	1676	OG1	THR	B	256	17.245	0.806	22.273	1.00	19.79	CATC
	ATOM	1678	CG2	THR	B	256	17.347	0.807	19.846	1.00	17.74	CATC
	ATOM	1679	N	PRO	B	257	21.027	2.224	22.869	1.00	16.08	CATC
	ATOM	1680	CA	PRO	B	257	21.472	3.017	24.023	1.00	15.25	CATC
35	ATOM	1681	CD	PRO	B	257	22.185	1.699	22.120	1.00	14.23	CATC
	ATOM	1682	C	PRO	B	257	21.374	4.530	23.857	1.00	16.16	CATC
	ATOM	1683	O	PRO	B	257	21.477	5.045	22.741	1.00	13.85	CATC
	ATOM	1684	CB	PRO	B	257	22.932	2.589	24.174	1.00	15.53	CATC
	ATOM	1685	CG	PRO	B	257	23.365	2.430	22.750	1.00	15.05	CATC
40	ATOM	1686	N	ILE	B	258	21.110	5.226	24.967	1.00	16.58	CATC
	ATOM	1687	CA	ILE	B	258	21.082	6.690	24.994	1.00	15.33	CATC
	ATOM	1689	C	ILE	B	258	22.351	7.025	25.776	1.00	16.59	CATC
	ATOM	1690	O	ILE	B	258	22.470	6.669	26.949	1.00	19.53	CATC
	ATOM	1691	CB	ILE	B	258	19.861	7.259	25.770	1.00	12.33	CATC
45	ATOM	1692	CG2	ILE	B	258	19.920	8.773	25.795	1.00	13.27	CATC
	ATOM	1693	CG1	ILE	B	258	18.546	6.793	25.144	1.00	14.05	CATC
	ATOM	1694	CD1	ILE	B	258	18.411	7.075	23.652	1.00	7.67	CATC
	ATOM	1695	N	LEU	B	259	23.338	7.599	25.102	1.00	16.23	CATC
	ATOM	1696	CA	LEU	B	259	24.598	7.951	25.745	1.00	14.66	CATC
50	ATOM	1698	C	LEU	B	259	24.447	9.222	26.581	1.00	14.94	CATC
	ATOM	1699	O	LEU	B	259	23.481	9.953	26.426	1.00	16.50	CATC
	ATOM	1700	CB	LEU	B	259	25.693	8.092	24.688	1.00	16.25	CATC
	ATOM	1701	CG	LEU	B	259	25.964	6.841	23.830	1.00	15.41	CATC
	ATOM	1702	CD1	LEU	B	259	26.953	7.160	22.704	1.00	12.67	CATC
55	ATOM	1703	CD2	LEU	B	259	26.507	5.708	24.690	1.00	16.40	CATC
	ATOM	1704	N	SER	B	260	25.417	9.488	27.453	1.00	14.04	CATC
	ATOM	1705	CA	SER	B	260	25.379	10.635	28.364	1.00	11.06	CATC
	ATOM	1707	C	SER	B	260	26.193	11.858	27.954	1.00	10.79	CATC
	ATOM	1708	O	SER	B	260	27.417	11.847	28.012	1.00	10.15	CATC
60	ATOM	1709	CB	SER	B	260	25.850	10.181	29.753	1.00	12.49	CATC
	ATOM	1710	OG	SER	B	260	26.113	11.283	30.600	1.00	12.18	CATC
	ATOM	1712	N	PRO	B	261	25.518	12.957	27.612	1.00	11.46	CATC
	ATOM	1713	CA	PRO	B	261	26.189	14.195	27.208	1.00	12.40	CATC
	ATOM	1714	CD	PRO	B	261	24.063	13.064	27.441	1.00	10.15	CATC
65	ATOM	1715	C	PRO	B	261	26.818	14.854	28.428	1.00	11.88	CATC
	ATOM	1716	O	PRO	B	261	27.820	15.573	28.324	1.00	11.66	CATC
	ATOM	1717	CB	PRO	B	261	25.035	15.072	26.732	1.00	12.17	CATC
	ATOM	1718	CG	PRO	B	261	23.954	14.100	26.399	1.00	13.08	CATC
	ATOM	1719	N	GLN	B	262	26.189	14.634	29.579	1.00	11.90	CATC
70	ATOM	1720	CA	GLN	B	262	26.643	15.241	30.824	1.00	12.63	CATC
	ATOM	1722	C	GLN	B	262	28.021	14.764	31.242	1.00	11.31	CATC
	ATOM	1723	O	GLN	B	262	28.834	15.570	31.701	1.00	13.82	CATC
	ATOM	1724	CB	GLN	B	262	25.639	14.995	31.965	1.00	12.73	CATC
	ATOM	1725	CG	GLN	B	262	25.924	15.801	33.228	1.00	7.87	CATC

	ATOM	1726	CD	GLN	B	262	25.869	17.269	32.959	1.00	8.76	CATC
	ATOM	1727	OE1	GLN	B	262	24.899	17.759	32.385	1.00	11.63	CATC
	ATOM	1728	NE2	GLN	B	262	26.919	17.984	33.330	1.00	8.99	CATC
	ATOM	1731	N	GLU	B	263	28.281	13.462	31.124	1.00	10.87	CATC
5	ATOM	1732	CA	GLU	B	263	29.585	12.940	31.516	1.00	11.08	CATC
	ATOM	1734	C	GLU	B	263	30.668	13.667	30.712	1.00	12.80	CATC
	ATOM	1735	O	GLU	B	263	31.703	14.050	31.251	1.00	11.93	CATC
	ATOM	1736	CB	GLU	B	263	29.643	11.425	31.297	1.00	11.19	CATC
	ATOM	1737	CG	GLU	B	263	30.924	10.753	31.778	1.00	13.22	CATC
10	ATOM	1738	CD	GLU	B	263	32.034	10.777	30.733	1.00	15.83	CATC
	ATOM	1739	OE1	GLU	B	263	33.217	10.759	31.118	1.00	14.51	CATC
	ATOM	1740	OE2	GLU	B	263	31.732	10.823	29.522	1.00	16.14	CATC
	ATOM	1741	N	VAL	B	264	30.400	13.915	29.431	1.00	10.86	CATC
	ATOM	1742	CA	VAL	B	264	31.358	14.622	28.594	1.00	10.05	CATC
15	ATOM	1744	C	VAL	B	264	31.497	16.046	29.106	1.00	8.45	CATC
	ATOM	1745	O	VAL	B	264	32.609	16.558	29.235	1.00	10.38	CATC
	ATOM	1746	CB	VAL	B	264	30.896	14.675	27.119	1.00	9.79	CATC
	ATOM	1747	CG1	VAL	B	264	31.688	15.716	26.361	1.00	6.09	CATC
	ATOM	1748	CG2	VAL	B	264	31.020	13.295	26.475	1.00	6.53	CATC
20	ATOM	1749	N	VAL	B	265	30.359	16.690	29.364	1.00	9.40	CATC
	ATOM	1750	CA	VAL	B	265	30.357	18.065	29.846	1.00	11.20	CATC
	ATOM	1752	C	VAL	B	265	31.073	18.228	31.203	1.00	10.70	CATC
	ATOM	1753	O	VAL	B	265	31.819	19.187	31.403	1.00	10.04	CATC
	ATOM	1754	CB	VAL	B	265	28.909	18.616	29.945	1.00	12.79	CATC
25	ATOM	1755	CG1	VAL	B	265	28.890	19.950	30.704	1.00	13.36	CATC
	ATOM	1756	CG2	VAL	B	265	28.301	18.790	28.538	1.00	13.24	CATC
	ATOM	1757	N	SER	B	266	30.909	17.256	32.094	1.00	10.48	CATC
	ATOM	1758	CA	SER	B	266	31.511	17.335	33.430	1.00	14.30	CATC
	ATOM	1760	C	SER	B	266	32.898	16.747	33.574	1.00	14.10	CATC
30	ATOM	1761	O	SER	B	266	33.691	17.243	34.370	1.00	14.46	CATC
	ATOM	1762	CB	SER	B	266	30.602	16.655	34.466	1.00	13.44	CATC
	ATOM	1763	OG	SER	B	266	29.367	17.342	34.604	1.00	13.80	CATC
	ATOM	1765	N	CYS	B	267	33.208	15.722	32.788	1.00	12.01	CATC
	ATOM	1766	CA	CYS	B	267	34.478	15.019	32.940	1.00	13.43	CATC
35	ATOM	1768	C	CYS	B	267	35.520	15.162	31.865	1.00	14.61	CATC
	ATOM	1769	O	CYS	B	267	36.711	14.966	32.124	1.00	11.46	CATC
	ATOM	1770	CB	CYS	B	267	34.196	13.532	33.110	1.00	15.84	CATC
	ATOM	1771	SG	CYS	B	267	32.867	13.188	34.317	1.00	16.91	CATC
	ATOM	1772	N	SER	B	268	35.084	15.478	30.652	1.00	16.29	CATC
40	ATOM	1773	CA	SER	B	268	36.012	15.531	29.531	1.00	15.87	CATC
	ATOM	1775	C	SER	B	268	36.942	16.729	29.449	1.00	14.65	CATC
	ATOM	1776	O	SER	B	268	36.507	17.866	29.312	1.00	15.99	CATC
	ATOM	1777	CB	SER	B	268	35.262	15.368	28.204	1.00	17.20	CATC
	ATOM	1778	OG	SER	B	268	36.180	15.309	27.131	1.00	15.98	CATC
45	ATOM	1780	N	GLN	B	269	38.235	16.454	29.495	1.00	12.21	CATC
	ATOM	1781	CA	GLN	B	269	39.224	17.506	29.365	1.00	17.41	CATC
	ATOM	1783	C	GLN	B	269	39.544	17.813	27.900	1.00	14.12	CATC
	ATOM	1784	O	GLN	B	269	40.390	18.660	27.617	1.00	20.11	CATC
	ATOM	1785	CB	GLN	B	269	40.488	17.156	30.138	1.00	20.55	CATC
50	ATOM	1786	CG	GLN	B	269	40.299	17.243	31.629	1.00	24.34	CATC
	ATOM	1787	CD	GLN	B	269	41.589	17.066	32.358	1.00	28.51	CATC
	ATOM	1788	OE1	GLN	B	269	42.596	17.721	32.049	1.00	30.93	CATC
	ATOM	1789	NE2	GLN	B	269	41.590	16.158	33.319	1.00	30.25	CATC
	ATOM	1792	N	TYR	B	270	38.876	17.116	26.979	1.00	11.90	CATC
55	ATOM	1793	CA	TYR	B	270	39.044	17.359	25.541	1.00	10.07	CATC
	ATOM	1795	C	TYR	B	270	38.036	18.414	25.081	1.00	12.15	CATC
	ATOM	1796	O	TYR	B	270	37.959	18.728	23.893	1.00	11.64	CATC
	ATOM	1797	CB	TYR	B	270	38.828	16.080	24.745	1.00	6.68	CATC
	ATOM	1798	CG	TYR	B	270	39.912	15.044	24.912	1.00	7.14	CATC
60	ATOM	1799	CD1	TYR	B	270	41.117	15.340	25.545	1.00	7.22	CATC
	ATOM	1800	CE1	TYR	B	270	42.116	14.371	25.670	1.00	5.96	CATC
	ATOM	1801	CZ	TYR	B	270	41.893	13.098	25.162	1.00	6.84	CATC
	ATOM	1802	OH	TYR	B	270	42.823	12.077	25.300	1.00	7.50	CATC
	ATOM	1804	CE2	TYR	B	270	40.708	12.808	24.533	1.00	5.71	CATC
65	ATOM	1805	CD2	TYR	B	270	39.735	13.770	24.413	1.00	7.48	CATC
	ATOM	1806	N	ALA	B	271	37.246	18.937	26.025	1.00	10.67	CATC
	ATOM	1807	CA	ALA	B	271	36.258	19.985	25.742	1.00	12.31	CATC
	ATOM	1809	C	ALA	B	271	36.152	20.929	26.941	1.00	15.10	CATC
	ATOM	1810	O	ALA	B	271	36.763	20.687	27.981	1.00	13.96	CATC
70	ATOM	1811	CB	ALA	B	271	34.906	19.380	25.436	1.00	8.79	CATC
	ATOM	1812	N	GLN	B	272	35.347	21.983	26.812	1.00	15.56	CATC
	ATOM	1813	CA	GLN	B	272	35.209	22.959	27.885	1.00	14.05	CATC
	ATOM	1815	C	GLN	B	272	33.834	23.010	28.561	1.00	15.82	CATC
	ATOM	1816	O	GLN	B	272	33.298	24.089	28.805	1.00	17.47	CATC

	ATOM	1817	CB	GLN	B	272	35.617	24.345	27.377	1.00	10.47	CATC
	ATOM	1818	CG	GLN	B	272	37.093	24.468	27.025	1.00	9.14	CATC
	ATOM	1819	CD	GLN	B	272	37.429	23.753	25.745	1.00	10.88	CATC
5	ATOM	1820	OE1	GLN	B	272	36.717	23.884	24.743	1.00	7.99	CATC
	ATOM	1821	NE2	GLN	B	272	38.488	22.944	25.776	1.00	11.22	CATC
	ATOM	1824	N	GLY	B	273	33.273	21.841	28.868	1.00	16.16	CATC
	ATOM	1825	CA	GLY	B	273	31.981	21.775	29.536	1.00	14.73	CATC
	ATOM	1827	C	GLY	B	273	30.866	22.543	28.850	1.00	15.83	CATC
	ATOM	1828	O	GLY	B	273	30.594	22.344	27.667	1.00	17.17	CATC
10	ATOM	1829	N	CYS	B	274	30.214	23.425	29.594	1.00	12.56	CATC
	ATOM	1830	CA	CYS	B	274	29.123	24.226	29.059	1.00	15.58	CATC
	ATOM	1832	C	CYS	B	274	29.620	25.412	28.240	1.00	12.50	CATC
	ATOM	1833	O	CYS	B	274	28.827	26.206	27.733	1.00	13.61	CATC
	ATOM	1834	CB	CYS	B	274	28.200	24.698	30.189	1.00	16.88	CATC
15	ATOM	1835	SG	CYS	B	274	27.178	23.365	30.892	1.00	21.40	CATC
	ATOM	1836	N	GLU	B	275	30.935	25.551	28.141	1.00	13.54	CATC
	ATOM	1837	CA	GLU	B	275	31.521	26.621	27.342	1.00	15.66	CATC
	ATOM	1839	C	GLU	B	275	31.966	26.114	25.962	1.00	15.18	CATC
	ATOM	1840	O	GLU	B	275	32.853	26.700	25.336	1.00	14.99	CATC
20	ATOM	1841	CB	GLU	B	275	32.686	27.281	28.077	1.00	17.28	CATC
	ATOM	1842	CG	GLU	B	275	32.251	28.107	29.288	1.00	23.11	CATC
	ATOM	1843	CD	GLU	B	275	31.604	27.264	30.381	1.00	27.00	CATC
	ATOM	1844	OE1	GLU	B	275	30.418	27.501	30.707	1.00	28.62	CATC
	ATOM	1845	OE2	GLU	B	275	32.282	26.361	30.921	1.00	31.68	CATC
25	ATOM	1846	N	GLY	B	276	31.382	24.996	25.522	1.00	14.52	CATC
	ATOM	1847	CA	GLY	B	276	31.680	24.456	24.201	1.00	12.07	CATC
	ATOM	1849	C	GLY	B	276	32.692	23.330	24.050	1.00	12.57	CATC
	ATOM	1850	O	GLY	B	276	33.328	22.895	25.012	1.00	10.87	CATC
	ATOM	1851	N	GLY	B	277	32.818	22.851	22.812	1.00	13.35	CATC
30	ATOM	1852	CA	GLY	B	277	33.731	21.771	22.484	1.00	11.22	CATC
	ATOM	1854	C	GLY	B	277	33.567	21.393	21.019	1.00	14.25	CATC
	ATOM	1855	O	GLY	B	277	32.805	22.043	20.295	1.00	10.14	CATC
	ATOM	1856	N	PHE	B	278	34.246	20.331	20.589	1.00	12.99	CATC
	ATOM	1857	CA	PHE	B	278	34.190	19.888	19.193	1.00	13.25	CATC
35	ATOM	1859	C	PHE	B	278	33.979	18.392	19.039	1.00	13.54	CATC
	ATOM	1860	O	PHE	B	278	34.675	17.599	19.673	1.00	14.97	CATC
	ATOM	1861	CB	PHE	B	278	35.449	20.357	18.451	1.00	11.03	CATC
	ATOM	1862	CG	PHE	B	278	35.519	21.837	18.339	1.00	13.21	CATC
	ATOM	1863	CD1	PHE	B	278	35.966	22.600	19.414	1.00	11.16	CATC
40	ATOM	1864	CE1	PHE	B	278	35.812	23.977	19.414	1.00	11.71	CATC
	ATOM	1865	CZ	PHE	B	278	35.216	24.609	18.330	1.00	12.81	CATC
	ATOM	1866	CE2	PHE	B	278	34.781	23.863	17.246	1.00	10.15	CATC
	ATOM	1867	CD2	PHE	B	278	34.938	22.484	17.253	1.00	11.78	CATC
	ATOM	1868	N	PRO	B	279	33.004	17.990	18.192	1.00	12.62	CATC
45	ATOM	1869	CA	PRO	B	279	32.666	16.585	17.931	1.00	11.29	CATC
	ATOM	1870	CD	PRO	B	279	32.072	18.895	17.487	1.00	12.53	CATC
	ATOM	1871	C	PRO	B	279	33.869	15.712	17.576	1.00	11.82	CATC
	ATOM	1872	O	PRO	B	279	33.933	14.560	18.001	1.00	13.70	CATC
	ATOM	1873	CB	PRO	B	279	31.660	16.682	16.786	1.00	11.84	CATC
50	ATOM	1874	CG	PRO	B	279	30.927	17.967	17.104	1.00	12.68	CATC
	ATOM	1875	N	TYR	B	280	34.829	16.251	16.822	1.00	10.03	CATC
	ATOM	1876	CA	TYR	B	280	36.025	15.470	16.470	1.00	8.96	CATC
	ATOM	1878	C	TYR	B	280	36.712	14.988	17.759	1.00	10.53	CATC
	ATOM	1879	O	TYR	B	280	37.123	13.840	17.846	1.00	8.61	CATC
55	ATOM	1880	CB	TYR	B	280	37.005	16.311	15.643	1.00	6.40	CATC
	ATOM	1881	CG	TYR	B	280	38.270	15.584	15.223	1.00	8.49	CATC
	ATOM	1882	CD1	TYR	B	280	39.368	15.497	16.075	1.00	8.51	CATC
	ATOM	1883	CE1	TYR	B	280	40.527	14.846	15.686	1.00	7.36	CATC
	ATOM	1884	CZ	TYR	B	280	40.601	14.274	14.428	1.00	8.99	CATC
60	ATOM	1885	OH	TYR	B	280	41.748	13.649	14.029	1.00	7.63	CATC
	ATOM	1887	CE2	TYR	B	280	39.535	14.338	13.562	1.00	5.00	CATC
	ATOM	1888	CD2	TYR	B	280	38.372	14.995	13.963	1.00	8.83	CATC
	ATOM	1889	N	LEU	B	281	36.805	15.865	18.761	1.00	11.01	CATC
	ATOM	1890	CA	LEU	B	281	37.448	15.517	20.038	1.00	11.43	CATC
65	ATOM	1892	C	LEU	B	281	36.573	14.723	21.007	1.00	10.11	CATC
	ATOM	1893	O	LEU	B	281	37.089	14.133	21.962	1.00	11.61	CATC
	ATOM	1894	CB	LEU	B	281	37.977	16.773	20.740	1.00	7.94	CATC
	ATOM	1895	CG	LEU	B	281	39.218	17.431	20.134	1.00	8.54	CATC
	ATOM	1896	CD1	LEU	B	281	39.466	18.777	20.774	1.00	6.06	CATC
70	ATOM	1897	CD2	LEU	B	281	40.426	16.535	20.316	1.00	5.82	CATC
	ATOM	1898	N	ILE	B	282	35.260	14.697	20.768	1.00	8.48	CATC
	ATOM	1899	CA	ILE	B	282	34.339	13.982	21.654	1.00	8.48	CATC
	ATOM	1901	C	ILE	B	282	33.778	12.693	21.035	1.00	9.54	CATC
	ATOM	1902	O	ILE	B	282	33.992	11.608	21.570	1.00	9.47	CATC

	ATOM	1903	CB	ILE	B	282	33.177	14.909	22.162	1.00	6.25	CATC
	ATOM	1904	CG2	ILE	B	282	32.184	14.126	23.025	1.00	6.26	CATC
	ATOM	1905	CG1	ILE	B	282	33.750	16.086	22.947	1.00	6.79	CATC
5	ATOM	1906	CD1	ILE	B	282	34.690	15.699	24.070	1.00	7.03	CATC
	ATOM	1907	N	ALA	B	283	33.054	12.807	19.924	1.00	9.18	CATC
	ATOM	1908	CA	ALA	B	283	32.518	11.632	19.249	1.00	9.10	CATC
	ATOM	1910	C	ALA	B	283	33.699	10.759	18.828	1.00	9.31	CATC
	ATOM	1911	O	ALA	B	283	33.612	9.534	18.801	1.00	8.20	CATC
	ATOM	1912	CB	ALA	B	283	31.727	12.055	18.035	1.00	7.90	CATC
10	ATOM	1913	N	GLY	B	284	34.816	11.412	18.531	1.00	12.11	CATC
	ATOM	1914	CA	GLY	B	284	36.010	10.704	18.121	1.00	10.05	CATC
	ATOM	1916	C	GLY	B	284	37.042	10.413	19.206	1.00	10.96	CATC
	ATOM	1917	O	GLY	B	284	37.039	9.336	19.803	1.00	8.95	CATC
	ATOM	1918	N	LYS	B	285	37.916	11.377	19.475	1.00	8.06	CATC
15	ATOM	1919	CA	LYS	B	285	38.991	11.165	20.436	1.00	8.36	CATC
	ATOM	1921	C	LYS	B	285	38.599	10.740	21.854	1.00	8.32	CATC
	ATOM	1922	O	LYS	B	285	39.096	9.737	22.348	1.00	9.51	CATC
	ATOM	1923	CB	LYS	B	285	39.915	12.371	20.488	1.00	7.14	CATC
	ATOM	1924	CG	LYS	B	285	41.259	12.029	21.096	1.00	9.24	CATC
20	ATOM	1925	CD	LYS	B	285	42.263	13.170	20.982	1.00	7.82	CATC
	ATOM	1926	CE	LYS	B	285	43.648	12.724	21.457	1.00	9.14	CATC
	ATOM	1927	NZ	LYS	B	285	44.198	11.620	20.636	1.00	10.57	CATC
	ATOM	1931	N	TYR	B	286	37.731	11.495	22.519	1.00	8.47	CATC
	ATOM	1932	CA	TYR	B	286	37.328	11.121	23.872	1.00	9.71	CATC
25	ATOM	1934	C	TYR	B	286	36.632	9.760	23.871	1.00	8.53	CATC
	ATOM	1935	O	TYR	B	286	36.868	8.940	24.751	1.00	8.08	CATC
	ATOM	1936	CB	TYR	B	286	36.415	12.174	24.486	1.00	8.68	CATC
	ATOM	1937	CG	TYR	B	286	36.187	11.989	25.973	1.00	8.89	CATC
	ATOM	1938	CD1	TYR	B	286	37.200	12.266	26.894	1.00	8.73	CATC
30	ATOM	1939	CE1	TYR	B	286	36.971	12.164	28.260	1.00	9.87	CATC
	ATOM	1940	CZ	TYR	B	286	35.722	11.784	28.709	1.00	9.88	CATC
	ATOM	1941	OH	TYR	B	286	35.453	11.730	30.055	1.00	13.63	CATC
	ATOM	1943	CE2	TYR	B	286	34.710	11.496	27.814	1.00	11.21	CATC
	ATOM	1944	CD2	TYR	B	286	34.947	11.597	26.455	1.00	9.23	CATC
35	ATOM	1945	N	ALA	B	287	35.776	9.518	22.885	1.00	6.66	CATC
	ATOM	1946	CA	ALA	B	287	35.114	8.229	22.798	1.00	7.97	CATC
	ATOM	1948	C	ALA	B	287	36.139	7.085	22.669	1.00	10.59	CATC
	ATOM	1949	O	ALA	B	287	35.972	6.032	23.277	1.00	6.49	CATC
	ATOM	1950	CB	ALA	B	287	34.155	8.217	21.635	1.00	5.00	CATC
40	ATOM	1951	N	GLN	B	288	37.213	7.296	21.906	1.00	8.85	CATC
	ATOM	1952	CA	GLN	B	288	38.230	6.252	21.722	1.00	9.72	CATC
	ATOM	1954	C	GLN	B	288	39.130	6.071	22.944	1.00	9.51	CATC
	ATOM	1955	O	GLN	B	288	39.423	4.956	23.341	1.00	12.22	CATC
	ATOM	1956	CB	GLN	B	288	39.117	6.578	20.520	1.00	7.13	CATC
45	ATOM	1957	CG	GLN	B	288	40.210	5.561	20.236	1.00	6.70	CATC
	ATOM	1958	CD	GLN	B	288	40.884	5.800	18.894	1.00	8.31	CATC
	ATOM	1959	OE1	GLN	B	288	41.914	6.483	18.805	1.00	8.66	CATC
	ATOM	1960	NE2	GLN	B	288	40.276	5.278	17.833	1.00	8.22	CATC
	ATOM	1963	N	ASP	B	289	39.556	7.179	23.527	1.00	9.05	CATC
50	ATOM	1964	CA	ASP	B	289	40.470	7.177	24.670	1.00	9.48	CATC
	ATOM	1966	C	ASP	B	289	39.858	6.842	26.023	1.00	9.43	CATC
	ATOM	1967	O	ASP	B	289	40.436	6.070	26.771	1.00	10.60	CATC
	ATOM	1968	CB	ASP	B	289	41.155	8.546	24.795	1.00	8.45	CATC
	ATOM	1969	CG	ASP	B	289	42.076	8.858	23.634	1.00	10.03	CATC
55	ATOM	1970	OD1	ASP	B	289	42.641	9.986	23.618	1.00	6.84	CATC
	ATOM	1971	OD2	ASP	B	289	42.257	7.984	22.744	1.00	11.21	CATC
	ATOM	1972	N	PHE	B	290	38.717	7.451	26.345	1.00	9.38	CATC
	ATOM	1973	CA	PHE	B	290	38.067	7.260	27.638	1.00	9.53	CATC
	ATOM	1975	C	PHE	B	290	36.728	6.570	27.599	1.00	10.80	CATC
60	ATOM	1976	O	PHE	B	290	36.308	5.961	28.586	1.00	6.83	CATC
	ATOM	1977	CB	PHE	B	290	37.939	8.603	28.355	1.00	12.76	CATC
	ATOM	1978	CG	PHE	B	290	39.266	9.229	28.683	1.00	12.92	CATC
	ATOM	1979	CD1	PHE	B	290	39.777	10.262	27.893	1.00	15.36	CATC
	ATOM	1980	CE1	PHE	B	290	41.030	10.809	28.143	1.00	12.76	CATC
65	ATOM	1981	CZ	PHE	B	290	41.791	10.320	29.197	1.00	15.74	CATC
	ATOM	1982	CE2	PHE	B	290	41.289	9.284	30.004	1.00	14.87	CATC
	ATOM	1983	CD2	PHE	B	290	40.031	8.748	29.742	1.00	12.74	CATC
	ATOM	1984	N	GLY	B	291	36.033	6.663	26.473	1.00	12.18	CATC
	ATOM	1985	CA	GLY	B	291	34.748	5.993	26.385	1.00	10.76	CATC
70	ATOM	1987	C	GLY	B	291	33.594	6.832	26.896	1.00	12.33	CATC
	ATOM	1988	O	GLY	B	291	33.783	7.812	27.623	1.00	12.62	CATC
	ATOM	1989	N	LEU	B	292	32.392	6.427	26.512	1.00	10.53	CATC
	ATOM	1990	CA	LEU	B	292	31.174	7.128	26.866	1.00	13.74	CATC
	ATOM	1992	C	LEU	B	292	30.277	6.232	27.709	1.00	12.45	CATC

	ATOM	1993	O	LEU B 292	30.285	5.019	27.542	1.00	11.69	CATC
	ATOM	1994	CB	LEU B 292	30.444	7.516	25.585	1.00	15.08	CATC
	ATOM	1995	CG	LEU B 292	30.717	8.859	24.914	1.00	16.15	CATC
5	ATOM	1996	CD1	LEU B 292	31.945	9.526	25.454	1.00	13.91	CATC
	ATOM	1997	CD2	LEU B 292	30.797	8.639	23.415	1.00	12.28	CATC
	ATOM	1998	N	VAL B 293	29.527	6.821	28.634	1.00	12.84	CATC
	ATOM	1999	CA	VAL B 293	28.631	6.034	29.477	1.00	13.33	CATC
	ATOM	2001	C	VAL B 293	27.188	6.328	29.084	1.00	13.53	CATC
10	ATOM	2002	O	VAL B 293	26.924	7.276	28.346	1.00	13.30	CATC
	ATOM	2003	CB	VAL B 293	28.845	6.335	30.987	1.00	14.20	CATC
	ATOM	2004	CG1	VAL B 293	30.290	6.122	31.358	1.00	15.13	CATC
	ATOM	2005	CG2	VAL B 293	28.447	7.747	31.318	1.00	14.08	CATC
	ATOM	2006	N	GLU B 294	26.253	5.512	29.557	1.00	15.00	CATC
15	ATOM	2007	CA	GLU B 294	24.850	5.732	29.230	1.00	16.39	CATC
	ATOM	2009	C	GLU B 294	24.224	6.864	30.043	1.00	15.89	CATC
	ATOM	2010	O	GLU B 294	24.763	7.277	31.088	1.00	15.29	CATC
	ATOM	2011	CB	GLU B 294	24.080	4.429	29.354	1.00	18.50	CATC
	ATOM	2012	CG	GLU B 294	24.660	3.379	28.420	1.00	21.52	CATC
20	ATOM	2013	CD	GLU B 294	23.969	2.045	28.494	1.00	25.64	CATC
	ATOM	2014	OE1	GLU B 294	24.629	1.060	28.888	1.00	31.76	CATC
	ATOM	2015	OE2	GLU B 294	22.776	1.971	28.138	1.00	26.71	CATC
	ATOM	2016	N	GLU B 295	23.134	7.420	29.522	1.00	15.17	CATC
	ATOM	2017	CA	GLU B 295	22.444	8.532	30.175	1.00	16.41	CATC
25	ATOM	2019	C	GLU B 295	22.116	8.232	31.647	1.00	17.71	CATC
	ATOM	2020	O	GLU B 295	22.293	9.081	32.522	1.00	16.97	CATC
	ATOM	2021	CB	GLU B 295	21.160	8.865	29.408	1.00	14.83	CATC
	ATOM	2022	CG	GLU B 295	20.263	9.891	30.081	1.00	13.68	CATC
	ATOM	2023	CD	GLU B 295	20.834	11.296	30.052	1.00	15.91	CATC
30	ATOM	2024	OE1	GLU B 295	20.341	12.146	30.805	1.00	17.59	CATC
	ATOM	2025	OE2	GLU B 295	21.759	11.579	29.269	1.00	15.34	CATC
	ATOM	2026	N	ALA B 296	21.675	7.007	31.912	1.00	17.60	CATC
	ATOM	2027	CA	ALA B 296	21.296	6.608	33.265	1.00	20.54	CATC
	ATOM	2029	C	ALA B 296	22.466	6.666	34.231	1.00	19.99	CATC
35	ATOM	2030	O	ALA B 296	22.279	6.892	35.429	1.00	22.55	CATC
	ATOM	2031	CB	ALA B 296	20.685	5.203	33.259	1.00	19.86	CATC
	ATOM	2032	N	CYS B 297	23.672	6.480	33.709	1.00	17.53	CATC
	ATOM	2033	CA	CYS B 297	24.846	6.500	34.548	1.00	17.89	CATC
	ATOM	2035	C	CYS B 297	25.161	7.901	35.029	1.00	19.45	CATC
40	ATOM	2036	O	CYS B 297	25.591	8.082	36.174	1.00	19.16	CATC
	ATOM	2037	CB	CYS B 297	26.055	5.929	33.818	1.00	20.23	CATC
	ATOM	2038	SG	CYS B 297	27.556	5.942	34.850	1.00	24.37	CATC
	ATOM	2039	N	PHE B 298	24.922	8.889	34.169	1.00	14.38	CATC
	ATOM	2040	CA	PHE B 298	25.219	10.270	34.500	1.00	14.68	CATC
45	ATOM	2042	C	PHE B 298	24.154	11.128	33.824	1.00	16.87	CATC
	ATOM	2043	O	PHE B 298	24.375	11.678	32.748	1.00	17.69	CATC
	ATOM	2044	CB	PHE B 298	26.615	10.604	33.971	1.00	12.63	CATC
	ATOM	2045	CG	PHE B 298	27.276	11.771	34.649	1.00	11.69	CATC
	ATOM	2046	CD1	PHE B 298	26.528	12.792	35.217	1.00	13.44	CATC
50	ATOM	2047	CE1	PHE B 298	27.155	13.879	35.832	1.00	11.18	CATC
	ATOM	2048	CZ	PHE B 298	28.536	13.942	35.881	1.00	10.80	CATC
	ATOM	2049	CE2	PHE B 298	29.290	12.928	35.321	1.00	11.65	CATC
	ATOM	2050	CD2	PHE B 298	28.660	11.850	34.708	1.00	12.96	CATC
	ATOM	2051	N	PRO B 299	22.963	11.223	34.439	1.00	17.31	CATC
55	ATOM	2052	CA	PRO B 299	21.831	12.003	33.917	1.00	14.73	CATC
	ATOM	2053	CD	PRO B 299	22.582	10.516	35.679	1.00	17.43	CATC
	ATOM	2054	C	PRO B 299	22.197	13.426	33.535	1.00	13.10	CATC
	ATOM	2055	O	PRO B 299	23.037	14.050	34.174	1.00	11.58	CATC
	ATOM	2056	CB	PRO B 299	20.837	11.959	35.073	1.00	15.73	CATC
60	ATOM	2057	CG	PRO B 299	21.070	10.594	35.647	1.00	15.50	CATC
	ATOM	2058	N	TYR B 300	21.571	13.934	32.482	1.00	13.74	CATC
	ATOM	2059	CA	TYR B 300	21.862	15.283	32.022	1.00	16.48	CATC
	ATOM	2061	C	TYR B 300	21.428	16.307	33.051	1.00	21.10	CATC
	ATOM	2062	O	TYR B 300	20.325	16.250	33.593	1.00	19.44	CATC
65	ATOM	2063	CB	TYR B 300	21.205	15.586	30.673	1.00	14.20	CATC
	ATOM	2064	CG	TYR B 300	21.711	16.870	30.073	1.00	12.02	CATC
	ATOM	2065	CD1	TYR B 300	23.072	17.048	29.819	1.00	12.13	CATC
	ATOM	2066	CE1	TYR B 300	23.560	18.241	29.288	1.00	10.32	CATC
	ATOM	2067	CZ	TYR B 300	22.677	19.264	29.005	1.00	8.83	CATC
	ATOM	2068	OH	TYR B 300	23.150	20.424	28.468	1.00	8.72	CATC
70	ATOM	2070	CE2	TYR B 300	21.326	19.117	29.248	1.00	11.23	CATC
	ATOM	2071	CD2	TYR B 300	20.845	17.916	29.781	1.00	10.84	CATC
	ATOM	2072	N	THR B 301	22.280	17.301	33.232	1.00	24.71	CATC
	ATOM	2073	CA	THR B 301	22.068	18.340	34.220	1.00	26.45	CATC
	ATOM	2075	C	THR B 301	22.061	19.718	33.563	1.00	27.03	CATC

	ATOM	2076	O	THR B 301	21.316	20.611	33.977	1.00	27.84	CATC
	ATOM	2077	CB	THR B 301	23.189	18.228	35.286	1.00	26.30	CATC
	ATOM	2078	OG1	THR B 301	22.735	17.395	36.359	1.00	28.60	CATC
5	ATOM	2080	CG2	THR B 301	23.600	19.555	35.807	1.00	26.54	CATC
	ATOM	2081	N	GLY B 302	22.865	19.867	32.515	1.00	26.28	CATC
	ATOM	2082	CA	GLY B 302	22.940	21.134	31.818	1.00	27.23	CATC
	ATOM	2084	C	GLY B 302	23.811	22.150	32.529	1.00	26.44	CATC
	ATOM	2085	O	GLY B 302	23.661	23.345	32.311	1.00	27.80	CATC
10	ATOM	2086	N	THR B 303	24.720	21.689	33.377	1.00	25.47	CATC
	ATOM	2087	CA	THR B 303	25.607	22.603	34.091	1.00	28.79	CATC
	ATOM	2089	C	THR B 303	26.967	21.970	34.222	1.00	25.80	CATC
	ATOM	2090	O	THR B 303	27.135	20.773	33.969	1.00	26.83	CATC
	ATOM	2091	CB	THR B 303	25.124	22.915	35.548	1.00	32.25	CATC
15	ATOM	2092	OG1	THR B 303	25.253	21.739	36.356	1.00	35.38	CATC
	ATOM	2094	CG2	THR B 303	23.681	23.393	35.579	1.00	30.69	CATC
	ATOM	2095	N	ASP B 304	27.930	22.769	34.657	1.00	26.71	CATC
	ATOM	2096	CA	ASP B 304	29.268	22.266	34.873	1.00	29.23	CATC
	ATOM	2098	C	ASP B 304	29.318	21.584	36.245	1.00	29.86	CATC
20	ATOM	2099	O	ASP B 304	30.095	21.962	37.115	1.00	31.67	CATC
	ATOM	2100	CB	ASP B 304	30.293	23.403	34.760	1.00	30.82	CATC
	ATOM	2101	CG	ASP B 304	30.416	23.943	33.334	1.00	32.38	CATC
	ATOM	2102	OD1	ASP B 304	30.500	25.176	33.153	1.00	35.33	CATC
	ATOM	2103	OD2	ASP B 304	30.426	23.132	32.388	1.00	30.73	CATC
25	ATOM	2104	N	SER B 305	28.464	20.579	36.429	1.00	29.84	CATC
	ATOM	2105	CA	SER B 305	28.403	19.829	37.672	1.00	28.83	CATC
	ATOM	2107	C	SER B 305	29.675	19.002	37.805	1.00	29.35	CATC
	ATOM	2108	O	SER B 305	30.379	18.771	36.819	1.00	28.46	CATC
	ATOM	2109	CB	SER B 305	27.172	18.923	37.677	1.00	30.50	CATC
30	ATOM	2110	OG	SER B 305	27.274	17.891	36.708	1.00	32.89	CATC
	ATOM	2112	N	PRO B 306	30.017	18.587	39.038	1.00	29.83	CATC
	ATOM	2113	CA	PRO B 306	31.241	17.794	39.177	1.00	28.28	CATC
	ATOM	2114	CD	PRO B 306	29.753	19.336	40.275	1.00	31.59	CATC
	ATOM	2115	C	PRO B 306	31.155	16.423	38.531	1.00	27.51	CATC
35	ATOM	2116	O	PRO B 306	30.063	15.885	38.297	1.00	27.35	CATC
	ATOM	2117	CB	PRO B 306	31.450	17.711	40.702	1.00	30.08	CATC
	ATOM	2118	CG	PRO B 306	30.213	18.369	41.317	1.00	29.86	CATC
	ATOM	2119	N	CYS B 307	32.322	15.870	38.233	1.00	24.68	CATC
	ATOM	2120	CA	CYS B 307	32.407	14.574	37.592	1.00	24.67	CATC
40	ATOM	2122	C	CYS B 307	32.159	13.432	38.583	1.00	25.85	CATC
	ATOM	2123	O	CYS B 307	33.086	12.860	39.142	1.00	23.64	CATC
	ATOM	2124	CB	CYS B 307	33.762	14.417	36.921	1.00	20.45	CATC
	ATOM	2125	SG	CYS B 307	33.908	12.841	36.042	1.00	24.21	CATC
	ATOM	2126	N	LYS B 308	30.891	13.104	38.783	1.00	27.73	CATC
45	ATOM	2127	CA	LYS B 308	30.503	12.040	39.697	1.00	31.90	CATC
	ATOM	2129	C	LYS B 308	29.315	11.294	39.084	1.00	30.03	CATC
	ATOM	2130	O	LYS B 308	28.294	11.899	38.741	1.00	27.82	CATC
	ATOM	2131	CB	LYS B 308	30.116	12.645	41.054	1.00	38.46	CATC
	ATOM	2132	CG	LYS B 308	30.002	11.635	42.195	1.00	43.53	CATC
50	ATOM	2133	CD	LYS B 308	28.557	11.165	42.420	1.00	48.03	CATC
	ATOM	2134	CE	LYS B 308	28.446	9.639	42.332	1.00	49.57	CATC
	ATOM	2135	NZ	LYS B 308	27.145	9.167	41.740	1.00	51.61	CATC
	ATOM	2139	N	MET B 309	29.442	9.980	38.956	1.00	29.63	CATC
	ATOM	2140	CA	MET B 309	28.377	9.169	38.365	1.00	29.74	CATC
55	ATOM	2142	C	MET B 309	28.204	7.862	39.129	1.00	28.32	CATC
	ATOM	2143	O	MET B 309	28.796	7.687	40.189	1.00	29.34	CATC
	ATOM	2144	CB	MET B 309	28.714	8.866	36.912	1.00	29.28	CATC
	ATOM	2145	CG	MET B 309	30.009	8.124	36.761	1.00	29.56	CATC
	ATOM	2146	SD	MET B 309	30.939	8.810	35.426	1.00	32.06	CATC
60	ATOM	2147	CE	MET B 309	30.199	7.987	34.155	1.00	32.52	CATC
	ATOM	2148	N	LYS B 310	27.388	6.952	38.601	1.00	27.44	CATC
	ATOM	2149	CA	LYS B 310	27.167	5.663	39.257	1.00	29.44	CATC
	ATOM	2151	C	LYS B 310	28.402	4.774	39.117	1.00	32.56	CATC
	ATOM	2152	O	LYS B 310	29.277	5.059	38.289	1.00	31.11	CATC
65	ATOM	2153	CB	LYS B 310	25.937	4.980	38.668	1.00	25.44	CATC
	ATOM	2154	CG	LYS B 310	24.650	5.742	38.899	1.00	24.28	CATC
	ATOM	2155	CD	LYS B 310	23.502	5.033	38.232	1.00	26.17	CATC
	ATOM	2156	CE	LYS B 310	22.204	5.245	38.974	1.00	26.93	CATC
	ATOM	2157	NZ	LYS B 310	21.753	6.637	38.843	1.00	29.88	CATC
70	ATOM	2161	N	GLU B 311	28.513	3.739	39.948	1.00	34.81	CATC
	ATOM	2162	CA	GLU B 311	29.673	2.860	39.859	1.00	37.84	CATC
	ATOM	2164	C	GLU B 311	29.507	1.865	38.734	1.00	36.85	CATC
	ATOM	2165	O	GLU B 311	28.386	1.504	38.358	1.00	33.51	CATC
	ATOM	2166	CB	GLU B 311	29.896	2.027	41.121	1.00	42.89	CATC
	ATOM	2167	CG	GLU B 311	29.464	2.610	42.442	1.00	48.19	CATC

	ATOM	2168	CD	GLU	B	311	29.976	1.775	43.609	1.00	52.62	CATC
	ATOM	2169	OE1	GLU	B	311	30.887	2.258	44.317	1.00	55.75	CATC
	ATOM	2170	OE2	GLU	B	311	29.489	0.634	43.808	1.00	56.44	CATC
5	ATOM	2171	N	ASP	B	312	30.653	1.388	38.258	1.00	38.84	CATC
	ATOM	2172	CA	ASP	B	312	30.753	0.372	37.208	1.00	39.37	CATC
	ATOM	2174	C	ASP	B	312	29.809	0.507	36.013	1.00	33.00	CATC
	ATOM	2175	O	ASP	B	312	29.030	-0.400	35.710	1.00	35.37	CATC
	ATOM	2176	CB	ASP	B	312	30.622	-1.032	37.825	1.00	46.29	CATC
	ATOM	2177	CG	ASP	B	312	31.581	-1.258	38.991	1.00	50.28	CATC
10	ATOM	2178	OD1	ASP	B	312	31.339	-2.211	39.768	1.00	53.24	CATC
	ATOM	2179	OD2	ASP	B	312	32.565	-0.486	39.135	1.00	54.61	CATC
	ATOM	2180	N	CYS	B	313	29.872	1.645	35.339	1.00	26.46	CATC
	ATOM	2181	CA	CYS	B	313	29.038	1.849	34.171	1.00	24.89	CATC
	ATOM	2183	C	CYS	B	313	29.807	1.387	32.946	1.00	22.61	CATC
15	ATOM	2184	O	CYS	B	313	31.007	1.625	32.854	1.00	23.25	CATC
	ATOM	2185	CB	CYS	B	313	28.715	3.319	34.015	1.00	22.40	CATC
	ATOM	2186	SG	CYS	B	313	27.737	3.989	35.382	1.00	24.75	CATC
	ATOM	2187	N	PHE	B	314	29.126	0.699	32.033	1.00	19.64	CATC
	ATOM	2188	CA	PHE	B	314	29.747	0.246	30.794	1.00	18.80	CATC
20	ATOM	2190	C	PHE	B	314	30.094	1.493	29.973	1.00	19.47	CATC
	ATOM	2191	O	PHE	B	314	29.374	2.505	30.030	1.00	18.20	CATC
	ATOM	2192	CB	PHE	B	314	28.776	-0.648	30.008	1.00	15.74	CATC
	ATOM	2193	CG	PHE	B	314	29.345	-1.185	28.715	1.00	16.75	CATC
	ATOM	2194	CD1	PHE	B	314	29.184	-0.484	27.517	1.00	16.85	CATC
25	ATOM	2195	CE1	PHE	B	314	29.705	-0.979	26.311	1.00	16.84	CATC
	ATOM	2196	CZ	PHE	B	314	30.394	-2.186	26.293	1.00	15.83	CATC
	ATOM	2197	CE2	PHE	B	314	30.561	-2.895	27.481	1.00	16.96	CATC
	ATOM	2198	CD2	PHE	B	314	30.034	-2.391	28.689	1.00	15.27	CATC
	ATOM	2199	N	ARG	B	315	31.224	1.442	29.267	1.00	15.78	CATC
30	ATOM	2200	CA	ARG	B	315	31.648	2.557	28.419	1.00	16.59	CATC
	ATOM	2202	C	ARG	B	315	31.781	2.121	26.961	1.00	14.45	CATC
	ATOM	2203	O	ARG	B	315	32.368	1.082	26.676	1.00	14.07	CATC
	ATOM	2204	CB	ARG	B	315	32.971	3.158	28.914	1.00	16.44	CATC
	ATOM	2205	CG	ARG	B	315	32.864	3.750	30.318	1.00	19.03	CATC
35	ATOM	2206	CD	ARG	B	315	34.087	4.514	30.759	1.00	17.69	CATC
	ATOM	2207	NE	ARG	B	315	34.030	5.892	30.294	1.00	22.46	CATC
	ATOM	2208	CZ	ARG	B	315	33.730	6.939	31.055	1.00	22.30	CATC
	ATOM	2209	NH1	ARG	B	315	33.707	8.154	30.522	1.00	20.08	CATC
	ATOM	2210	NH2	ARG	B	315	33.460	6.777	32.343	1.00	21.23	CATC
40	ATOM	2216	N	TYR	B	316	31.162	2.880	26.057	1.00	13.86	CATC
	ATOM	2217	CA	TYR	B	316	31.230	2.620	24.617	1.00	14.15	CATC
	ATOM	2219	C	TYR	B	316	32.383	3.425	24.059	1.00	12.75	CATC
	ATOM	2220	O	TYR	B	316	32.537	4.601	24.407	1.00	10.86	CATC
	ATOM	2221	CB	TYR	B	316	29.952	3.077	23.920	1.00	12.65	CATC
45	ATOM	2222	CG	TYR	B	316	28.733	2.309	24.316	1.00	11.02	CATC
	ATOM	2223	CD1	TYR	B	316	28.029	2.641	25.468	1.00	14.55	CATC
	ATOM	2224	CE1	TYR	B	316	26.878	1.949	25.831	1.00	14.43	CATC
	ATOM	2225	CZ	TYR	B	316	26.425	0.916	25.032	1.00	13.42	CATC
	ATOM	2226	OH	TYR	B	316	25.283	0.254	25.388	1.00	17.53	CATC
50	ATOM	2228	CE2	TYR	B	316	27.109	0.565	23.880	1.00	12.28	CATC
	ATOM	2229	CD2	TYR	B	316	28.263	1.265	23.529	1.00	10.14	CATC
	ATOM	2230	N	TYR	B	317	33.175	2.809	23.188	1.00	13.49	CATC
	ATOM	2231	CA	TYR	B	317	34.335	3.485	22.590	1.00	12.10	CATC
	ATOM	2233	C	TYR	B	317	34.176	3.624	21.080	1.00	12.34	CATC
55	ATOM	2234	O	TYR	B	317	33.349	2.943	20.470	1.00	14.69	CATC
	ATOM	2235	CB	TYR	B	317	35.618	2.687	22.872	1.00	11.27	CATC
	ATOM	2236	CG	TYR	B	317	35.947	2.537	24.339	1.00	10.60	CATC
	ATOM	2237	CD1	TYR	B	317	35.285	1.593	25.127	1.00	11.14	CATC
	ATOM	2238	CE1	TYR	B	317	35.553	1.479	26.496	1.00	10.65	CATC
60	ATOM	2239	CZ	TYR	B	317	36.487	2.321	27.074	1.00	11.54	CATC
	ATOM	2240	OH	TYR	B	317	36.732	2.230	28.419	1.00	15.84	CATC
	ATOM	2242	CE2	TYR	B	317	37.162	3.267	26.307	1.00	9.10	CATC
	ATOM	2243	CD2	TYR	B	317	36.891	3.365	24.949	1.00	9.11	CATC
	ATOM	2244	N	SER	B	318	34.965	4.510	20.478	1.00	8.17	CATC
65	ATOM	2245	CA	SER	B	318	34.941	4.688	19.026	1.00	7.95	CATC
	ATOM	2247	C	SER	B	318	36.198	4.065	18.409	1.00	6.16	CATC
	ATOM	2248	O	SER	B	318	37.313	4.419	18.773	1.00	6.86	CATC
	ATOM	2249	CB	SER	B	318	34.845	6.167	18.673	1.00	7.09	CATC
	ATOM	2250	OG	SER	B	318	33.546	6.664	18.963	1.00	9.47	CATC
70	ATOM	2252	N	SER	B	319	36.019	3.121	17.492	1.00	8.23	CATC
	ATOM	2253	CA	SER	B	319	37.167	2.452	16.877	1.00	9.12	CATC
	ATOM	2255	C	SER	B	319	37.870	3.316	15.846	1.00	8.88	CATC
	ATOM	2256	O	SER	B	319	39.011	3.037	15.497	1.00	7.57	CATC
	ATOM	2257	CB	SER	B	319	36.748	1.133	16.218	1.00	8.17	CATC

	ATOM	2258	OG	SER	B	319	35.711	1.358	15.271	1.00	7.15	CATC
	ATOM	2260	N	GLU	B	320	37.205	4.376	15.390	1.00	10.61	CATC
	ATOM	2261	CA	GLU	B	320	37.762	5.248	14.350	1.00	11.99	CATC
5	ATOM	2263	C	GLU	B	320	37.021	6.583	14.284	1.00	10.39	CATC
	ATOM	2264	O	GLU	B	320	35.841	6.664	14.641	1.00	13.78	CATC
	ATOM	2265	CB	GLU	B	320	37.619	4.547	12.984	1.00	15.88	CATC
	ATOM	2266	CG	GLU	B	320	38.476	5.119	11.847	1.00	17.06	CATC
	ATOM	2267	CD	GLU	B	320	37.823	6.284	11.104	1.00	19.84	CATC
10	ATOM	2268	OE1	GLU	B	320	36.574	6.438	11.152	1.00	19.21	CATC
	ATOM	2269	OE2	GLU	B	320	38.581	7.063	10.483	1.00	21.06	CATC
	ATOM	2270	N	TYR	B	321	37.719	7.623	13.828	1.00	8.86	CATC
	ATOM	2271	CA	TYR	B	321	37.120	8.944	13.649	1.00	9.27	CATC
	ATOM	2273	C	TYR	B	321	37.967	9.762	12.685	1.00	10.64	CATC
15	ATOM	2274	O	TYR	B	321	39.186	9.583	12.617	1.00	12.88	CATC
	ATOM	2275	CB	TYR	B	321	36.970	9.681	14.979	1.00	8.53	CATC
	ATOM	2276	CG	TYR	B	321	38.262	9.803	15.753	1.00	10.45	CATC
	ATOM	2277	CD1	TYR	B	321	38.699	8.774	16.570	1.00	8.20	CATC
	ATOM	2278	CE1	TYR	B	321	39.882	8.884	17.283	1.00	8.95	CATC
20	ATOM	2279	CZ	TYR	B	321	40.645	10.038	17.186	1.00	9.38	CATC
	ATOM	2280	OH	TYR	B	321	41.827	10.149	17.883	1.00	7.29	CATC
	ATOM	2282	CE2	TYR	B	321	40.234	11.081	16.381	1.00	7.31	CATC
	ATOM	2283	CD2	TYR	B	321	39.044	10.958	15.666	1.00	10.92	CATC
	ATOM	2284	N	HIS	B	322	37.326	10.678	11.965	1.00	8.81	CATC
25	ATOM	2285	CA	HIS	B	322	38.022	11.522	10.995	1.00	8.96	CATC
	ATOM	2287	C	HIS	B	322	37.104	12.627	10.508	1.00	8.35	CATC
	ATOM	2288	O	HIS	B	322	35.886	12.509	10.610	1.00	10.81	CATC
	ATOM	2289	CB	HIS	B	322	38.438	10.684	9.775	1.00	8.41	CATC
	ATOM	2290	CG	HIS	B	322	37.280	10.090	9.022	1.00	9.09	CATC
30	ATOM	2291	ND1	HIS	B	322	36.683	10.722	7.954	1.00	9.59	CATC
	ATOM	2292	CE1	HIS	B	322	35.675	9.987	7.511	1.00	8.11	CATC
	ATOM	2293	NE2	HIS	B	322	35.600	8.898	8.252	1.00	9.32	CATC
	ATOM	2294	CD2	HIS	B	322	36.593	8.937	9.202	1.00	9.73	CATC
	ATOM	2297	N	TYR	B	323	37.687	13.727	10.039	1.00	5.00	CATC
35	ATOM	2298	CA	TYR	B	323	36.898	14.793	9.417	1.00	9.83	CATC
	ATOM	2300	C	TYR	B	323	36.549	14.272	8.015	1.00	8.51	CATC
	ATOM	2301	O	TYR	B	323	37.414	13.667	7.374	1.00	7.94	CATC
	ATOM	2302	CB	TYR	B	323	37.740	16.056	9.262	1.00	8.82	CATC
	ATOM	2303	CG	TYR	B	323	37.784	16.916	10.506	1.00	9.13	CATC
40	ATOM	2304	CD1	TYR	B	323	36.619	17.495	11.009	1.00	7.90	CATC
	ATOM	2305	CE1	TYR	B	323	36.648	18.316	12.128	1.00	9.77	CATC
	ATOM	2306	CZ	TYR	B	323	37.862	18.568	12.759	1.00	10.16	CATC
	ATOM	2307	OH	TYR	B	323	37.898	19.399	13.850	1.00	5.85	CATC
	ATOM	2309	CE2	TYR	B	323	39.044	17.997	12.278	1.00	10.06	CATC
45	ATOM	2310	CD2	TYR	B	323	38.994	17.175	11.158	1.00	8.10	CATC
	ATOM	2311	N	VAL	B	324	35.312	14.429	7.539	1.00	10.31	CATC
	ATOM	2312	CA	VAL	B	324	35.052	13.926	6.183	1.00	10.95	CATC
	ATOM	2314	C	VAL	B	324	35.864	14.749	5.198	1.00	11.47	CATC
	ATOM	2315	O	VAL	B	324	36.005	15.971	5.340	1.00	11.88	CATC
50	ATOM	2316	CB	VAL	B	324	33.541	13.724	5.786	1.00	13.21	CATC
	ATOM	2317	CG1	VAL	B	324	32.622	13.991	6.946	1.00	9.41	CATC
	ATOM	2318	CG2	VAL	B	324	33.163	14.472	4.497	1.00	10.57	CATC
	ATOM	2319	N	GLY	B	325	36.526	14.042	4.292	1.00	10.48	CATC
	ATOM	2320	CA	GLY	B	325	37.415	14.705	3.361	1.00	12.72	CATC
55	ATOM	2322	C	GLY	B	325	38.834	14.383	3.802	1.00	13.50	CATC
	ATOM	2323	O	GLY	B	325	39.792	14.725	3.116	1.00	18.51	CATC
	ATOM	2324	N	GLY	B	326	38.969	13.753	4.971	1.00	12.33	CATC
	ATOM	2325	CA	GLY	B	326	40.274	13.352	5.476	1.00	10.90	CATC
	ATOM	2327	C	GLY	B	326	40.915	14.211	6.552	1.00	11.80	CATC
60	ATOM	2328	O	GLY	B	326	41.680	13.703	7.368	1.00	11.83	CATC
	ATOM	2329	N	PHE	B	327	40.640	15.512	6.520	1.00	10.23	CATC
	ATOM	2330	CA	PHE	B	327	41.197	16.466	7.469	1.00	11.98	CATC
	ATOM	2332	C	PHE	B	327	40.345	17.729	7.406	1.00	12.84	CATC
	ATOM	2333	O	PHE	B	327	39.507	17.874	6.506	1.00	10.70	CATC
65	ATOM	2334	CB	PHE	B	327	42.658	16.786	7.119	1.00	11.57	CATC
	ATOM	2335	CG	PHE	B	327	42.881	17.092	5.662	1.00	12.30	CATC
	ATOM	2336	CD1	PHE	B	327	43.168	16.068	4.760	1.00	11.59	CATC
	ATOM	2337	CE1	PHE	B	327	43.352	16.336	3.399	1.00	12.60	CATC
	ATOM	2338	CZ	PHE	B	327	43.246	17.638	2.935	1.00	10.39	CATC
70	ATOM	2339	CE2	PHE	B	327	42.960	18.674	3.829	1.00	11.69	CATC
	ATOM	2340	CD2	PHE	B	327	42.780	18.397	5.184	1.00	10.26	CATC
	ATOM	2341	N	TYR	B	328	40.536	18.637	8.359	1.00	12.04	CATC
	ATOM	2342	CA	TYR	B	328	39.741	19.856	8.365	1.00	9.43	CATC
	ATOM	2344	C	TYR	B	328	40.067	20.698	7.153	1.00	13.22	CATC
	ATOM	2345	O	TYR	B	328	41.215	21.148	6.977	1.00	10.70	CATC

	ATOM	2346	CB	TYR	B	328	39.968	20.676	9.628	1.00	6.24	CATC
	ATOM	2347	CG	TYR	B	328	39.097	21.909	9.696	1.00	5.00	CATC
	ATOM	2348	CD1	TYR	B	328	39.656	23.177	9.687	1.00	5.49	CATC
5	ATOM	2349	CE1	TYR	B	328	38.860	24.310	9.722	1.00	7.19	CATC
	ATOM	2350	CZ	TYR	B	328	37.488	24.174	9.769	1.00	5.00	CATC
	ATOM	2351	OH	TYR	B	328	36.692	25.287	9.812	1.00	10.38	CATC
	ATOM	2353	CE2	TYR	B	328	36.907	22.931	9.780	1.00	7.73	CATC
	ATOM	2354	CD2	TYR	B	328	37.716	21.800	9.744	1.00	9.20	CATC
10	ATOM	2355	N	GLY	B	329	39.036	20.930	6.345	1.00	10.92	CATC
	ATOM	2356	CA	GLY	B	329	39.193	21.703	5.137	1.00	13.09	CATC
	ATOM	2358	C	GLY	B	329	38.925	20.876	3.894	1.00	15.22	CATC
	ATOM	2359	O	GLY	B	329	38.850	21.430	2.790	1.00	19.06	CATC
	ATOM	2360	N	GLY	B	330	38.748	19.565	4.061	1.00	12.76	CATC
15	ATOM	2361	CA	GLY	B	330	38.502	18.703	2.913	1.00	10.41	CATC
	ATOM	2363	C	GLY	B	330	37.059	18.290	2.756	1.00	11.86	CATC
	ATOM	2364	O	GLY	B	330	36.730	17.453	1.924	1.00	13.88	CATC
	ATOM	2365	N	CYS	B	331	36.177	18.890	3.542	1.00	10.71	CATC
	ATOM	2366	CA	CYS	B	331	34.765	18.524	3.490	1.00	9.27	CATC
	ATOM	2368	C	CYS	B	331	34.064	19.062	2.256	1.00	9.38	CATC
20	ATOM	2369	O	CYS	B	331	34.460	20.089	1.711	1.00	11.13	CATC
	ATOM	2370	CB	CYS	B	331	34.046	19.056	4.738	1.00	5.00	CATC
	ATOM	2371	SG	CYS	B	331	32.420	18.360	4.980	1.00	12.59	CATC
	ATOM	2372	N	ASN	B	332	33.064	18.327	1.782	1.00	8.47	CATC
	ATOM	2373	CA	ASN	B	332	32.228	18.784	0.673	1.00	9.57	CATC
25	ATOM	2375	C	ASN	B	332	30.926	18.024	0.704	1.00	10.08	CATC
	ATOM	2376	O	ASN	B	332	30.808	17.032	1.425	1.00	13.01	CATC
	ATOM	2377	CB	ASN	B	332	32.920	18.735	-0.710	1.00	5.00	CATC
	ATOM	2378	CG	ASN	B	332	33.255	17.347	-1.170	1.00	6.40	CATC
	ATOM	2379	OD1	ASN	B	332	32.408	16.458	-1.176	1.00	11.60	CATC
30	ATOM	2380	ND2	ASN	B	332	34.500	17.151	-1.585	1.00	7.77	CATC
	ATOM	2383	N	GLU	B	333	29.942	18.499	-0.047	1.00	10.75	CATC
	ATOM	2384	CA	GLU	B	333	28.625	17.877	-0.058	1.00	11.21	CATC
	ATOM	2386	C	GLU	B	333	28.618	16.448	-0.546	1.00	14.07	CATC
	ATOM	2387	O	GLU	B	333	27.968	15.583	0.063	1.00	14.53	CATC
35	ATOM	2388	CB	GLU	B	333	27.639	18.719	-0.871	1.00	14.34	CATC
	ATOM	2389	CG	GLU	B	333	26.253	18.111	-0.968	1.00	15.24	CATC
	ATOM	2390	CD	GLU	B	333	25.755	18.040	-2.398	1.00	20.08	CATC
	ATOM	2391	OE1	GLU	B	333	24.539	17.863	-2.597	1.00	20.25	CATC
	ATOM	2392	OE2	GLU	B	333	26.574	18.154	-3.333	1.00	23.68	CATC
40	ATOM	2393	N	ALA	B	334	29.326	16.199	-1.651	1.00	13.68	CATC
	ATOM	2394	CA	ALA	B	334	29.417	14.857	-2.224	1.00	10.87	CATC
	ATOM	2396	C	ALA	B	334	29.921	13.840	-1.187	1.00	10.17	CATC
	ATOM	2397	O	ALA	B	334	29.316	12.787	-0.991	1.00	11.73	CATC
	ATOM	2398	CB	ALA	B	334	30.328	14.876	-3.434	1.00	12.80	CATC
45	ATOM	2399	N	LEU	B	335	31.016	14.168	-0.511	1.00	9.37	CATC
	ATOM	2400	CA	LEU	B	335	31.584	13.282	0.502	1.00	9.32	CATC
	ATOM	2402	C	LEU	B	335	30.660	13.144	1.707	1.00	10.92	CATC
	ATOM	2403	O	LEU	B	335	30.564	12.070	2.312	1.00	10.71	CATC
	ATOM	2404	CB	LEU	B	335	32.977	13.762	0.911	1.00	9.20	CATC
50	ATOM	2405	CG	LEU	B	335	34.028	13.616	-0.202	1.00	11.26	CATC
	ATOM	2406	CD1	LEU	B	335	35.345	14.244	0.214	1.00	12.64	CATC
	ATOM	2407	CD2	LEU	B	335	34.226	12.159	-0.559	1.00	6.82	CATC
	ATOM	2408	N	MET	B	336	29.928	14.210	2.019	1.00	12.55	CATC
	ATOM	2409	CA	MET	B	336	28.987	14.154	3.129	1.00	12.11	CATC
55	ATOM	2411	C	MET	B	336	27.873	13.167	2.833	1.00	15.49	CATC
	ATOM	2412	O	MET	B	336	27.560	12.318	3.671	1.00	13.86	CATC
	ATOM	2413	CB	MET	B	336	28.423	15.535	3.448	1.00	9.60	CATC
	ATOM	2414	CG	MET	B	336	29.453	16.403	4.143	1.00	5.00	CATC
	ATOM	2415	SD	MET	B	336	28.938	18.095	4.315	1.00	11.39	CATC
60	ATOM	2416	CE	MET	B	336	27.444	17.951	5.345	1.00	5.00	CATC
	ATOM	2417	N	LYS	B	337	27.300	13.211	1.634	1.00	14.33	CATC
	ATOM	2418	CA	LYS	B	337	26.241	12.247	1.390	1.00	17.93	CATC
	ATOM	2420	C	LYS	B	337	26.721	10.815	1.226	1.00	15.00	CATC
	ATOM	2421	O	LYS	B	337	25.993	9.891	1.557	1.00	15.67	CATC
65	ATOM	2422	CB	LYS	B	337	25.207	12.694	0.345	1.00	22.76	CATC
	ATOM	2423	CG	LYS	B	337	25.672	13.053	-1.024	1.00	24.36	CATC
	ATOM	2424	CD	LYS	B	337	24.448	13.058	-1.920	1.00	28.72	CATC
	ATOM	2425	CE	LYS	B	337	24.623	13.964	-3.104	1.00	31.24	CATC
	ATOM	2426	NZ	LYS	B	337	24.622	15.373	-2.664	1.00	35.43	CATC
70	ATOM	2430	N	LEU	B	338	27.970	10.621	0.807	1.00	14.49	CATC
	ATOM	2431	CA	LEU	B	338	28.494	9.263	0.725	1.00	17.17	CATC
	ATOM	2433	C	LEU	B	338	28.644	8.742	2.165	1.00	14.89	CATC
	ATOM	2434	O	LEU	B	338	28.205	7.637	2.484	1.00	16.83	CATC
	ATOM	2435	CB	LEU	B	338	29.842	9.226	0.000	1.00	18.51	CATC

	ATOM	2436	CG	LEU	B	338	29.829	9.283	-1.532	1.00	20.92	CATC
	ATOM	2437	CD1	LEU	B	338	31.216	9.618	-2.049	1.00	21.06	CATC
	ATOM	2438	CD2	LEU	B	338	29.365	7.955	-2.094	1.00	22.51	CATC
	ATOM	2439	N	GLU	B	339	29.206	9.570	3.042	1.00	15.40	CATC
5	ATOM	2440	CA	GLU	B	339	29.379	9.192	4.447	1.00	14.31	CATC
	ATOM	2442	C	GLU	B	339	28.033	8.881	5.094	1.00	11.32	CATC
	ATOM	2443	O	GLU	B	339	27.861	7.837	5.730	1.00	13.59	CATC
	ATOM	2444	CB	GLU	B	339	30.078	10.319	5.232	1.00	16.42	CATC
	ATOM	2445	CG	GLU	B	339	30.264	10.045	6.743	1.00	14.04	CATC
10	ATOM	2446	CD	GLU	B	339	31.229	8.902	7.025	1.00	15.18	CATC
	ATOM	2447	OE1	GLU	B	339	31.012	8.165	8.000	1.00	17.31	CATC
	ATOM	2448	OE2	GLU	B	339	32.205	8.721	6.272	1.00	11.96	CATC
	ATOM	2449	N	LEU	B	340	27.065	9.762	4.873	1.00	10.55	CATC
	ATOM	2450	CA	LEU	B	340	25.749	9.608	5.455	1.00	9.49	CATC
15	ATOM	2452	C	LEU	B	340	25.078	8.304	5.102	1.00	13.66	CATC
	ATOM	2453	O	LEU	B	340	24.728	7.534	5.985	1.00	17.08	CATC
	ATOM	2454	CB	LEU	B	340	24.857	10.768	5.051	1.00	11.09	CATC
	ATOM	2455	CG	LEU	B	340	23.487	10.801	5.716	1.00	11.32	CATC
	ATOM	2456	CD1	LEU	B	340	23.649	10.954	7.232	1.00	9.84	CATC
20	ATOM	2457	CD2	LEU	B	340	22.680	11.950	5.120	1.00	13.10	CATC
	ATOM	2458	N	VAL	B	341	24.927	8.009	3.818	1.00	15.08	CATC
	ATOM	2459	CA	VAL	B	341	24.238	6.776	3.491	1.00	14.74	CATC
	ATOM	2461	C	VAL	B	341	25.050	5.500	3.670	1.00	15.13	CATC
	ATOM	2462	O	VAL	B	341	24.475	4.446	3.913	1.00	19.27	CATC
25	ATOM	2463	CB	VAL	B	341	23.452	6.828	2.117	1.00	14.80	CATC
	ATOM	2464	CG1	VAL	B	341	23.438	8.236	1.525	1.00	16.33	CATC
	ATOM	2465	CG2	VAL	B	341	23.957	5.810	1.146	1.00	12.22	CATC
	ATOM	2466	N	HIS	B	342	26.374	5.579	3.586	1.00	15.62	CATC
	ATOM	2467	CA	HIS	B	342	27.191	4.373	3.744	1.00	16.21	CATC
30	ATOM	2469	C	HIS	B	342	27.612	4.119	5.175	1.00	19.48	CATC
	ATOM	2470	O	HIS	B	342	27.998	2.995	5.501	1.00	17.93	CATC
	ATOM	2471	CB	HIS	B	342	28.462	4.431	2.899	1.00	15.80	CATC
	ATOM	2472	CG	HIS	B	342	28.215	4.438	1.426	1.00	18.54	CATC
	ATOM	2473	ND1	HIS	B	342	27.316	3.591	0.817	1.00	21.90	CATC
35	ATOM	2474	CE1	HIS	B	342	27.300	3.827	-0.482	1.00	20.54	CATC
	ATOM	2475	NE2	HIS	B	342	28.160	4.793	-0.739	1.00	19.73	CATC
	ATOM	2476	CD2	HIS	B	342	28.748	5.191	0.436	1.00	18.56	CATC
	ATOM	2479	N	HIS	B	343	27.553	5.148	6.024	1.00	18.28	CATC
	ATOM	2480	CA	HIS	B	343	28.016	4.999	7.406	1.00	19.24	CATC
40	ATOM	2482	C	HIS	B	343	27.090	5.482	8.518	1.00	16.70	CATC
	ATOM	2483	O	HIS	B	343	27.220	5.064	9.664	1.00	21.06	CATC
	ATOM	2484	CB	HIS	B	343	29.410	5.609	7.552	1.00	19.41	CATC
	ATOM	2485	CG	HIS	B	343	30.457	4.941	6.718	1.00	19.19	CATC
	ATOM	2486	ND1	HIS	B	343	31.154	5.584	5.722	1.00	21.63	CATC
45	ATOM	2487	CE1	HIS	B	343	31.990	4.752	5.146	1.00	19.91	CATC
	ATOM	2488	NE2	HIS	B	343	31.868	3.570	5.733	1.00	18.34	CATC
	ATOM	2489	CD2	HIS	B	343	30.918	3.657	6.720	1.00	16.95	CATC
	ATOM	2492	N	GLY	B	344	26.163	6.366	8.190	1.00	14.39	CATC
	ATOM	2493	CA	GLY	B	344	25.220	6.829	9.186	1.00	11.19	CATC
50	ATOM	2495	C	GLY	B	344	25.287	8.317	9.426	1.00	12.04	CATC
	ATOM	2496	O	GLY	B	344	26.113	9.017	8.820	1.00	11.43	CATC
	ATOM	2497	N	PRO	B	345	24.400	8.841	10.290	1.00	10.62	CATC
	ATOM	2498	CA	PRO	B	345	24.360	10.270	10.622	1.00	8.50	CATC
	ATOM	2499	CD	PRO	B	345	23.305	8.106	10.952	1.00	8.84	CATC
55	ATOM	2500	C	PRO	B	345	25.729	10.691	11.126	1.00	10.07	CATC
	ATOM	2501	O	PRO	B	345	26.435	9.905	11.769	1.00	11.53	CATC
	ATOM	2502	CB	PRO	B	345	23.327	10.327	11.745	1.00	9.85	CATC
	ATOM	2503	CG	PRO	B	345	22.387	9.219	11.396	1.00	8.90	CATC
	ATOM	2504	N	MET	B	346	26.112	11.924	10.837	1.00	9.23	CATC
60	ATOM	2505	CA	MET	B	346	27.403	12.413	11.267	1.00	10.94	CATC
	ATOM	2507	C	MET	B	346	27.200	13.792	11.850	1.00	11.96	CATC
	ATOM	2508	O	MET	B	346	26.203	14.458	11.543	1.00	9.69	CATC
	ATOM	2509	CB	MET	B	346	28.361	12.502	10.076	1.00	14.71	CATC
	ATOM	2510	CG	MET	B	346	28.210	13.767	9.263	1.00	17.88	CATC
65	ATOM	2511	SD	MET	B	346	28.452	13.551	7.483	1.00	26.19	CATC
	ATOM	2512	CE	MET	B	346	27.365	12.195	7.193	1.00	22.02	CATC
	ATOM	2513	N	ALA	B	347	28.143	14.210	12.690	1.00	10.41	CATC
	ATOM	2514	CA	ALA	B	347	28.112	15.529	13.317	1.00	11.69	CATC
	ATOM	2516	C	ALA	B	347	28.542	16.613	12.313	1.00	13.58	CATC
70	ATOM	2517	O	ALA	B	347	29.487	16.413	11.549	1.00	11.88	CATC
	ATOM	2518	CB	ALA	B	347	29.070	15.543	14.532	1.00	8.08	CATC
	ATOM	2519	N	VAL	B	348	27.824	17.733	12.293	1.00	11.23	CATC
	ATOM	2520	CA	VAL	B	348	28.174	18.865	11.440	1.00	10.90	CATC
	ATOM	2522	C	VAL	B	348	28.058	20.116	12.299	1.00	12.96	CATC

255

	ATOM	2523	O	VAL	B	348	27.471	20.080	13.381	1.00	15.31	CATC
	ATOM	2524	CB	VAL	B	348	27.225	19.040	10.196	1.00	10.11	CATC
	ATOM	2525	CG1	VAL	B	348	27.337	17.853	9.266	1.00	10.10	CATC
	ATOM	2526	CG2	VAL	B	348	25.794	19.224	10.611	1.00	8.91	CATC
5	ATOM	2527	N	ALA	B	349	28.663	21.205	11.847	1.00	11.37	CATC
	ATOM	2528	CA	ALA	B	349	28.562	22.471	12.548	1.00	11.71	CATC
	ATOM	2530	C	ALA	B	349	28.255	23.546	11.515	1.00	13.37	CATC
	ATOM	2531	O	ALA	B	349	28.591	23.400	10.328	1.00	12.77	CATC
	ATOM	2532	CB	ALA	B	349	29.849	22.788	13.289	1.00	11.27	CATC
10	ATOM	2533	N	PHE	B	350	27.552	24.589	11.947	1.00	11.30	CATC
	ATOM	2534	CA	PHE	B	350	27.221	25.689	11.061	1.00	14.54	CATC
	ATOM	2536	C	PHE	B	350	27.089	26.962	11.859	1.00	16.07	CATC
	ATOM	2537	O	PHE	B	350	27.170	26.943	13.091	1.00	17.52	CATC
	ATOM	2538	CB	PHE	B	350	25.930	25.412	10.287	1.00	14.24	CATC
15	ATOM	2539	CG	PHE	B	350	24.688	25.473	11.120	1.00	13.45	CATC
	ATOM	2540	CD1	PHE	B	350	23.794	26.518	10.966	1.00	14.51	CATC
	ATOM	2541	CE1	PHE	B	350	22.634	26.570	11.719	1.00	16.84	CATC
	ATOM	2542	CZ	PHE	B	350	22.357	25.570	12.640	1.00	14.12	CATC
	ATOM	2543	CE2	PHE	B	350	23.244	24.526	12.797	1.00	15.21	CATC
20	ATOM	2544	CD2	PHE	B	350	24.404	24.481	12.040	1.00	13.35	CATC
	ATOM	2545	N	GLU	B	351	26.915	28.075	11.162	1.00	16.09	CATC
	ATOM	2546	CA	GLU	B	351	26.767	29.352	11.835	1.00	18.51	CATC
	ATOM	2548	C	GLU	B	351	25.290	29.670	12.003	1.00	19.49	CATC
	ATOM	2549	O	GLU	B	351	24.555	29.799	11.019	1.00	19.11	CATC
25	ATOM	2550	CB	GLU	B	351	27.465	30.464	11.051	1.00	17.51	CATC
	ATOM	2551	CG	GLU	B	351	27.389	31.830	11.721	1.00	20.86	CATC
	ATOM	2552	CD	GLU	B	351	28.271	31.951	12.971	1.00	22.82	CATC
	ATOM	2553	OE1	GLU	B	351	28.307	33.052	13.558	1.00	25.46	CATC
	ATOM	2554	OE2	GLU	B	351	28.933	30.965	13.366	1.00	21.26	CATC
30	ATOM	2555	N	VAL	B	352	24.847	29.709	13.253	1.00	19.57	CATC
	ATOM	2556	CA	VAL	B	352	23.467	30.042	13.560	1.00	19.87	CATC
	ATOM	2558	C	VAL	B	352	23.356	31.565	13.554	1.00	23.35	CATC
	ATOM	2559	O	VAL	B	352	24.215	32.266	14.098	1.00	20.51	CATC
	ATOM	2560	CB	VAL	B	352	23.058	29.500	14.943	1.00	18.78	CATC
35	ATOM	2561	CG1	VAL	B	352	21.807	30.219	15.462	1.00	18.82	CATC
	ATOM	2562	CG2	VAL	B	352	22.811	28.019	14.858	1.00	14.78	CATC
	ATOM	2563	N	TYR	B	353	22.356	32.073	12.849	1.00	26.08	CATC
	ATOM	2564	CA	TYR	B	353	22.116	33.513	12.797	1.00	29.37	CATC
	ATOM	2566	C	TYR	B	353	20.738	33.784	13.404	1.00	30.38	CATC
40	ATOM	2567	O	TYR	B	353	19.923	32.871	13.532	1.00	31.28	CATC
	ATOM	2568	CB	TYR	B	353	22.161	34.028	11.361	1.00	26.91	CATC
	ATOM	2569	CG	TYR	B	353	23.530	34.030	10.725	1.00	26.56	CATC
	ATOM	2570	CD1	TYR	B	353	24.461	35.024	11.027	1.00	24.10	CATC
	ATOM	2571	CE1	TYR	B	353	25.724	35.038	10.424	1.00	24.68	CATC
45	ATOM	2572	CZ	TYR	B	353	26.058	34.043	9.510	1.00	25.46	CATC
	ATOM	2573	OH	TYR	B	353	27.297	34.025	8.913	1.00	23.10	CATC
	ATOM	2575	CE2	TYR	B	353	25.142	33.047	9.196	1.00	26.98	CATC
	ATOM	2576	CD2	TYR	B	353	23.887	33.045	9.804	1.00	26.92	CATC
	ATOM	2577	N	ASP	B	354	20.473	35.035	13.761	1.00	32.98	CATC
50	ATOM	2578	CA	ASP	B	354	19.199	35.385	14.382	1.00	35.26	CATC
	ATOM	2580	C	ASP	B	354	17.986	34.874	13.624	1.00	30.19	CATC
	ATOM	2581	O	ASP	B	354	17.068	34.333	14.228	1.00	32.09	CATC
	ATOM	2582	CB	ASP	B	354	19.074	36.893	14.601	1.00	41.75	CATC
	ATOM	2583	CG	ASP	B	354	17.856	37.253	15.443	1.00	46.14	CATC
55	ATOM	2584	OD1	ASP	B	354	17.817	36.864	16.638	1.00	48.40	CATC
	ATOM	2585	OD2	ASP	B	354	16.922	37.898	14.909	1.00	47.68	CATC
	ATOM	2586	N	ASP	B	355	17.994	35.013	12.304	1.00	29.90	CATC
	ATOM	2587	CA	ASP	B	355	16.872	34.545	11.499	1.00	29.44	CATC
	ATOM	2589	C	ASP	B	355	16.616	33.054	11.687	1.00	27.46	CATC
60	ATOM	2590	O	ASP	B	355	15.482	32.599	11.606	1.00	30.88	CATC
	ATOM	2591	CB	ASP	B	355	17.067	34.898	10.015	1.00	32.79	CATC
	ATOM	2592	CG	ASP	B	355	18.139	34.060	9.323	1.00	34.78	CATC
	ATOM	2593	OD1	ASP	B	355	18.980	33.416	9.993	1.00	33.94	CATC
	ATOM	2594	OD2	ASP	B	355	18.142	34.067	8.072	1.00	36.61	CATC
65	ATOM	2595	N	PHE	B	356	17.669	32.305	11.992	1.00	25.63	CATC
	ATOM	2596	CA	PHE	B	356	17.541	30.875	12.220	1.00	26.16	CATC
	ATOM	2598	C	PHE	B	356	16.821	30.614	13.538	1.00	27.69	CATC
	ATOM	2599	O	PHE	B	356	16.081	29.644	13.676	1.00	24.74	CATC
	ATOM	2600	CB	PHE	B	356	18.926	30.212	12.229	1.00	22.57	CATC
70	ATOM	2601	CG	PHE	B	356	18.883	28.708	12.341	1.00	21.09	CATC
	ATOM	2602	CD1	PHE	B	356	19.115	28.081	13.570	1.00	18.01	CATC
	ATOM	2603	CE1	PHE	B	356	19.044	26.689	13.691	1.00	17.50	CATC
	ATOM	2604	CZ	PHE	B	356	18.738	25.903	12.565	1.00	16.35	CATC
	ATOM	2605	CE2	PHE	B	356	18.510	26.520	11.331	1.00	16.81	CATC

	ATOM	2606	CD2	PHE	B	356	18.584	27.918	11.224	1.00	18.27	CATC
	ATOM	2607	N	LEU	B	357	17.027	31.500	14.503	1.00	33.52	CATC
	ATOM	2608	CA	LEU	B	357	16.411	31.353	15.818	1.00	35.24	CATC
5	ATOM	2610	C	LEU	B	357	14.896	31.190	15.731	1.00	36.36	CATC
	ATOM	2611	O	LEU	B	357	14.328	30.316	16.389	1.00	36.77	CATC
	ATOM	2612	CB	LEU	B	357	16.796	32.530	16.714	1.00	35.86	CATC
	ATOM	2613	CG	LEU	B	357	18.306	32.638	16.953	1.00	36.28	CATC
	ATOM	2614	CD1	LEU	B	357	18.635	33.873	17.774	1.00	37.22	CATC
10	ATOM	2615	CD2	LEU	B	357	18.810	31.376	17.648	1.00	35.82	CATC
	ATOM	2616	N	HIS	B	358	14.238	32.004	14.910	1.00	37.22	CATC
	ATOM	2617	CA	HIS	B	358	12.800	31.852	14.762	1.00	37.17	CATC
	ATOM	2619	C	HIS	B	358	12.398	31.022	13.540	1.00	36.37	CATC
	ATOM	2620	O	HIS	B	358	11.399	31.312	12.871	1.00	37.83	CATC
15	ATOM	2621	CB	HIS	B	358	12.037	33.193	14.801	1.00	42.00	CATC
	ATOM	2622	CG	HIS	B	358	12.881	34.407	14.562	0.00	46.86	CATC
	ATOM	2623	ND1	HIS	B	358	13.693	34.950	15.533	0.00	56.79	CATC
	ATOM	2624	CE1	HIS	B	358	14.241	36.062	15.074	0.00	57.16	CATC
	ATOM	2625	NE2	HIS	B	358	13.815	36.258	13.841	0.00	53.74	CATC
20	ATOM	2626	CD2	HIS	B	358	12.966	35.235	13.493	0.00	55.63	CATC
	ATOM	2629	N	TYR	B	359	13.185	29.987	13.248	1.00	31.73	CATC
	ATOM	2630	CA	TYR	B	359	12.884	29.101	12.130	1.00	27.53	CATC
	ATOM	2632	C	TYR	B	359	11.749	28.231	12.606	1.00	28.02	CATC
	ATOM	2633	O	TYR	B	359	11.753	27.777	13.748	1.00	26.70	CATC
25	ATOM	2634	CB	TYR	B	359	14.094	28.227	11.771	1.00	23.50	CATC
	ATOM	2635	CG	TYR	B	359	13.762	26.978	10.977	1.00	18.53	CATC
	ATOM	2636	CD1	TYR	B	359	13.508	25.769	11.627	1.00	19.03	CATC
	ATOM	2637	CE1	TYR	B	359	13.227	24.611	10.914	1.00	17.00	CATC
	ATOM	2638	CZ	TYR	B	359	13.209	24.653	9.527	1.00	15.55	CATC
30	ATOM	2639	OH	TYR	B	359	12.977	23.493	8.831	1.00	13.86	CATC
	ATOM	2641	CE2	TYR	B	359	13.453	25.836	8.856	1.00	12.87	CATC
	ATOM	2642	CD2	TYR	B	359	13.725	26.994	9.581	1.00	17.55	CATC
	ATOM	2643	N	LYS	B	360	10.765	28.020	11.746	1.00	28.83	CATC
	ATOM	2644	CA	LYS	B	360	9.631	27.189	12.113	1.00	30.50	CATC
35	ATOM	2646	C	LYS	B	360	9.512	25.976	11.215	1.00	28.58	CATC
	ATOM	2647	O	LYS	B	360	9.305	24.864	11.691	1.00	26.41	CATC
	ATOM	2648	CB	LYS	B	360	8.337	28.003	12.056	1.00	34.59	CATC
	ATOM	2649	CG	LYS	B	360	7.782	28.411	13.421	1.00	38.43	CATC
	ATOM	2650	CD	LYS	B	360	8.711	29.387	14.136	1.00	40.49	CATC
40	ATOM	2651	CE	LYS	B	360	8.093	30.773	14.259	1.00	41.94	CATC
	ATOM	2652	NZ	LYS	B	360	8.544	31.448	15.503	0.00	63.81	CATC
	ATOM	2656	N	LYS	B	361	9.672	26.193	9.914	1.00	30.55	CATC
	ATOM	2657	CA	LYS	B	361	9.538	25.121	8.938	1.00	29.22	CATC
	ATOM	2659	C	LYS	B	361	10.138	25.499	7.589	1.00	25.83	CATC
45	ATOM	2660	O	LYS	B	361	10.451	26.661	7.330	1.00	23.34	CATC
	ATOM	2661	CB	LYS	B	361	8.055	24.808	8.744	1.00	33.74	CATC
	ATOM	2662	CG	LYS	B	361	7.244	26.003	8.246	1.00	34.74	CATC
	ATOM	2663	CD	LYS	B	361	5.769	25.654	8.131	1.00	38.66	CATC
	ATOM	2664	CE	LYS	B	361	5.218	25.921	6.733	1.00	39.05	CATC
50	ATOM	2665	NZ	LYS	B	361	4.119	24.968	6.387	1.00	40.23	CATC
	ATOM	2669	N	GLY	B	362	10.272	24.506	6.724	1.00	25.12	CATC
	ATOM	2670	CA	GLY	B	362	10.799	24.766	5.403	1.00	26.05	CATC
	ATOM	2672	C	GLY	B	362	12.279	24.502	5.258	1.00	25.70	CATC
	ATOM	2673	O	GLY	B	362	12.881	23.805	6.071	1.00	27.44	CATC
55	ATOM	2674	N	ILE	B	363	12.853	25.046	4.191	1.00	21.08	CATC
	ATOM	2675	CA	ILE	B	363	14.256	24.874	3.899	1.00	20.43	CATC
	ATOM	2677	C	ILE	B	363	14.959	26.167	4.211	1.00	20.08	CATC
	ATOM	2678	O	ILE	B	363	14.868	27.127	3.453	1.00	21.18	CATC
	ATOM	2679	CB	ILE	B	363	14.452	24.504	2.433	1.00	21.19	CATC
60	ATOM	2680	CG2	ILE	B	363	15.937	24.445	2.092	1.00	19.65	CATC
	ATOM	2681	CG1	ILE	B	363	13.750	23.172	2.160	1.00	20.06	CATC
	ATOM	2682	CD1	ILE	B	363	13.780	22.760	0.720	1.00	26.28	CATC
	ATOM	2683	N	TYR	B	364	15.663	26.183	5.334	1.00	19.56	CATC
	ATOM	2684	CA	TYR	B	364	16.357	27.380	5.776	1.00	20.02	CATC
65	ATOM	2686	C	TYR	B	364	17.456	27.819	4.839	1.00	23.97	CATC
	ATOM	2687	O	TYR	B	364	18.182	26.994	4.283	1.00	21.14	CATC
	ATOM	2688	CB	TYR	B	364	16.949	27.189	7.179	1.00	15.84	CATC
	ATOM	2689	CG	TYR	B	364	17.847	28.336	7.611	1.00	16.31	CATC
	ATOM	2690	CD1	TYR	B	364	19.231	28.267	7.445	1.00	15.51	CATC
70	ATOM	2691	CE1	TYR	B	364	20.050	29.331	7.800	1.00	15.02	CATC
	ATOM	2692	CZ	TYR	B	364	19.490	30.476	8.337	1.00	14.26	CATC
	ATOM	2693	OH	TYR	B	364	20.307	31.509	8.718	1.00	12.42	CATC
	ATOM	2695	CE2	TYR	B	364	18.129	30.573	8.516	1.00	14.58	CATC
	ATOM	2696	CD2	TYR	B	364	17.310	29.507	8.152	1.00	15.09	CATC
	ATOM	2697	N	HIS	B	365	17.632	29.135	4.777	1.00	26.91	CATC

	ATOM	2698	CA	HIS	B	365	18.655	29.766	3.981	1.00	30.76	CATC
	ATOM	2700	C	HIS	B	365	18.975	31.188	4.479	1.00	32.54	CATC
	ATOM	2701	O	HIS	B	365	18.148	31.851	5.104	1.00	29.87	CATC
5	ATOM	2702	CB	HIS	B	365	18.227	29.811	2.506	1.00	35.17	CATC
	ATOM	2703	CG	HIS	B	365	19.022	30.774	1.679	1.00	39.70	CATC
	ATOM	2704	ND1	HIS	B	365	18.512	31.976	1.234	1.00	42.21	CATC
	ATOM	2705	CE1	HIS	B	365	19.464	32.654	0.612	1.00	42.39	CATC
	ATOM	2706	NE2	HIS	B	365	20.570	31.933	0.632	1.00	41.79	CATC
10	ATOM	2707	CD2	HIS	B	365	20.322	30.750	1.288	1.00	39.47	CATC
	ATOM	2710	N	HIS	B	366	20.216	31.591	4.215	1.00	38.04	CATC
	ATOM	2711	CA	HIS	B	366	20.805	32.914	4.455	1.00	43.16	CATC
	ATOM	2713	C	HIS	B	366	21.106	33.531	5.810	1.00	47.83	CATC
	ATOM	2714	O	HIS	B	366	20.843	32.955	6.849	1.00	48.25	CATC
15	ATOM	2715	CB	HIS	B	366	20.166	33.979	3.537	1.00	39.28	CATC
	ATOM	2716	CG	HIS	B	366	18.881	34.552	4.049	0.00	60.17	CATC
	ATOM	2717	ND1	HIS	B	366	18.836	35.484	5.062	0.00	49.96	CATC
	ATOM	2718	CE1	HIS	B	366	17.582	35.834	5.283	0.00	36.13	CATC
	ATOM	2719	NE2	HIS	B	366	16.810	35.161	4.448	0.00	51.45	CATC
20	ATOM	2720	CD2	HIS	B	366	17.598	34.352	3.666	0.00	43.36	CATC
	ATOM	2723	N	THR	B	367	21.843	34.640	5.695	1.00	53.77	CATC
	ATOM	2724	CA	THR	B	367	22.334	35.579	6.712	1.00	55.06	CATC
	ATOM	2726	C	THR	B	367	23.860	35.759	6.559	1.00	60.16	CATC
	ATOM	2727	O	THR	B	367	24.407	35.446	5.498	1.00	63.39	CATC
	ATOM	2728	CB	THR	B	367	21.910	35.231	8.139	1.00	54.00	CATC
25	ATOM	2729	OG1	THR	B	367	20.520	34.912	8.144	1.00	55.84	CATC
	ATOM	2731	CG2	THR	B	367	22.062	36.448	9.044	1.00	56.52	CATC
	ATOM	2732	N	GLY	B	368	24.504	36.392	7.541	1.00	63.87	CATC
	ATOM	2733	CA	GLY	B	368	25.951	36.604	7.564	1.00	63.50	CATC
30	ATOM	2735	C	GLY	B	368	26.881	37.192	6.509	1.00	64.05	CATC
	ATOM	2736	O	GLY	B	368	26.971	38.417	6.353	1.00	66.68	CATC
	ATOM	2737	N	LEU	B	369	27.629	36.279	5.880	1.00	63.09	CATC
	ATOM	2738	CA	LEU	B	369	28.686	36.483	4.870	1.00	63.40	CATC
	ATOM	2740	C	LEU	B	369	29.951	35.802	5.435	1.00	63.90	CATC
	ATOM	2741	O	LEU	B	369	30.250	34.669	5.041	1.00	66.55	CATC
35	ATOM	2742	CB	LEU	B	369	28.966	37.957	4.516	1.00	63.41	CATC
	ATOM	2743	CG	LEU	B	369	29.336	38.254	3.052	0.00	48.28	CATC
	ATOM	2744	CD1	LEU	B	369	29.558	39.747	2.861	0.00	42.33	CATC
	ATOM	2745	CD2	LEU	B	369	30.573	37.476	2.617	0.00	35.45	CATC
40	ATOM	2746	N	ARG	B	370	30.670	36.449	6.362	1.00	62.82	CATC
	ATOM	2747	CA	ARG	B	370	31.877	35.838	6.952	1.00	62.95	CATC
	ATOM	2749	C	ARG	B	370	32.343	36.484	8.268	1.00	63.50	CATC
	ATOM	2750	OT1	ARG	B	370	33.223	35.891	8.943	1.00	62.88	CATC
	ATOM	2751	CB	ARG	B	370	33.028	35.835	5.932	1.00	63.65	CATC
	ATOM	2752	CG	ARG	B	370	33.938	34.606	5.993	1.00	64.06	CATC
45	ATOM	2753	CD	ARG	B	370	33.504	33.530	4.985	1.00	64.97	CATC
	ATOM	2754	NE	ARG	B	370	34.488	32.450	4.832	1.00	65.45	CATC
	ATOM	2755	CZ	ARG	B	370	34.318	31.377	4.055	1.00	65.32	CATC
	ATOM	2756	NH1	ARG	B	370	35.270	30.448	3.975	1.00	64.34	CATC
	ATOM	2757	NH2	ARG	B	370	33.192	31.225	3.359	1.00	65.09	CATC
50	ATOM	2763	OT2	ARG	B	370	31.826	37.575	8.614	1.00	64.18	CATC
	ATOM	2764	N	ASP	B	371	45.053	29.113	-1.241	1.00	59.77	CATC
	ATOM	2765	CA	ASP	B	371	45.559	30.362	-1.797	1.00	59.30	CATC
	ATOM	2767	C	ASP	B	371	45.967	31.396	-0.730	1.00	59.63	CATC
	ATOM	2768	O	ASP	B	371	45.479	32.534	-0.748	1.00	60.48	CATC
55	ATOM	2769	CB	ASP	B	371	44.503	30.964	-2.736	1.00	61.36	CATC
	ATOM	2770	CG	ASP	B	371	45.068	32.041	-3.644	0.00	12.97	CATC
	ATOM	2771	OD1	ASP	B	371	44.569	33.185	-3.593	0.00	12.23	CATC
	ATOM	2772	OD2	ASP	B	371	46.003	31.741	-4.417	0.00	27.79	CATC
60	ATOM	2773	N	PRO	C	372	46.738	30.975	0.301	1.00	58.61	CATC
	ATOM	2774	CA	PRO	C	372	47.242	29.618	0.548	1.00	56.02	CATC
	ATOM	2775	CD	PRO	C	372	47.501	31.957	1.101	1.00	58.93	CATC
	ATOM	2776	C	PRO	C	372	46.171	28.862	1.346	1.00	53.82	CATC
	ATOM	2777	O	PRO	C	372	45.333	29.496	2.002	1.00	54.83	CATC
	ATOM	2778	CB	PRO	C	372	48.493	29.873	1.391	1.00	58.02	CATC
65	ATOM	2779	CG	PRO	C	372	48.130	31.097	2.173	1.00	56.98	CATC
	ATOM	2780	N	PHE	C	373	46.176	27.531	1.268	1.00	50.06	CATC
	ATOM	2781	CA	PHE	C	373	45.187	26.722	1.981	1.00	47.43	CATC
	ATOM	2783	C	PHE	C	373	45.071	27.196	3.431	1.00	46.64	CATC
	ATOM	2784	O	PHE	C	373	46.060	27.289	4.166	1.00	47.52	CATC
70	ATOM	2785	CB	PHE	C	373	45.546	25.232	1.917	1.00	46.72	CATC
	ATOM	2786	CG	PHE	C	373	44.451	24.315	2.405	1.00	46.70	CATC
	ATOM	2787	CD1	PHE	C	373	44.670	23.456	3.479	1.00	46.77	CATC
	ATOM	2788	CE1	PHE	C	373	43.670	22.592	3.928	1.00	47.30	CATC
	ATOM	2789	CZ	PHE	C	373	42.437	22.584	3.299	1.00	46.91	CATC

	ATOM	2790	CE2	PHE	C	373	42.205	23.440	2.224	1.00	46.83	CATC
	ATOM	2791	CD2	PHE	C	373	43.210	24.299	1.784	1.00	46.81	CATC
	ATOM	2792	N	ASN	C	374	43.863	27.610	3.781	1.00	43.93	CATC
5	ATOM	2793	CA	ASN	C	374	43.550	28.100	5.110	1.00	41.67	CATC
	ATOM	2795	C	ASN	C	374	42.078	27.838	5.353	1.00	36.09	CATC
	ATOM	2796	O	ASN	C	374	41.231	28.706	5.139	1.00	39.01	CATC
	ATOM	2797	CB	ASN	C	374	43.857	29.589	5.216	1.00	46.93	CATC
	ATOM	2798	CG	ASN	C	374	45.055	29.864	6.096	1.00	49.38	CATC
10	ATOM	2799	OD1	ASN	C	374	45.009	29.653	7.312	1.00	49.85	CATC
	ATOM	2800	ND2	ASN	C	374	46.146	30.320	5.491	1.00	50.89	CATC
	ATOM	2803	N	PRO	C	375	41.750	26.596	5.736	1.00	31.94	CATC
	ATOM	2804	CA	PRO	C	375	40.374	26.209	5.996	1.00	28.49	CATC
	ATOM	2805	CD	PRO	C	375	42.664	25.476	6.028	1.00	32.28	CATC
15	ATOM	2806	C	PRO	C	375	39.930	26.714	7.340	1.00	29.16	CATC
	ATOM	2807	O	PRO	C	375	40.561	26.455	8.368	1.00	35.92	CATC
	ATOM	2808	CB	PRO	C	375	40.453	24.692	6.001	1.00	27.65	CATC
	ATOM	2809	CG	PRO	C	375	41.743	24.451	6.687	1.00	28.70	CATC
	ATOM	2810	N	PHE	C	376	38.907	27.538	7.302	1.00	21.31	CATC
20	ATOM	2811	CA	PHE	C	376	38.282	28.047	8.494	1.00	18.68	CATC
	ATOM	2813	C	PHE	C	376	37.034	28.736	8.050	1.00	15.43	CATC
	ATOM	2814	O	PHE	C	376	37.064	29.626	7.211	1.00	16.17	CATC
	ATOM	2815	CB	PHE	C	376	39.122	29.038	9.305	1.00	17.83	CATC
	ATOM	2816	CG	PHE	C	376	38.370	29.593	10.490	1.00	15.44	CATC
25	ATOM	2817	CD1	PHE	C	376	37.580	30.734	10.359	1.00	16.59	CATC
	ATOM	2818	CE1	PHE	C	376	36.789	31.177	11.417	1.00	16.72	CATC
	ATOM	2819	CZ	PHE	C	376	36.787	30.481	12.623	1.00	14.14	CATC
	ATOM	2820	CE2	PHE	C	376	37.575	29.350	12.765	1.00	13.91	CATC
	ATOM	2821	CD2	PHE	C	376	38.359	28.913	11.703	1.00	15.31	CATC
30	ATOM	2822	N	GLU	C	377	35.934	28.302	8.624	1.00	13.73	CATC
	ATOM	2823	CA	GLU	C	377	34.656	28.878	8.330	1.00	14.90	CATC
	ATOM	2825	C	GLU	C	377	34.017	28.973	9.694	1.00	13.77	CATC
	ATOM	2826	O	GLU	C	377	33.935	27.986	10.423	1.00	13.37	CATC
	ATOM	2827	CB	GLU	C	377	33.869	27.946	7.411	1.00	17.07	CATC
35	ATOM	2828	CG	GLU	C	377	34.550	27.687	6.062	1.00	19.52	CATC
	ATOM	2829	CD	GLU	C	377	33.638	26.954	5.088	1.00	22.16	CATC
	ATOM	2830	OE1	GLU	C	377	34.130	26.125	4.288	1.00	25.15	CATC
	ATOM	2831	OE2	GLU	C	377	32.417	27.190	5.147	1.00	21.49	CATC
	ATOM	2832	N	LEU	C	378	33.630	30.182	10.062	1.00	14.03	CATC
40	ATOM	2833	CA	LEU	C	378	33.020	30.424	11.350	1.00	13.11	CATC
	ATOM	2835	C	LEU	C	378	31.767	29.594	11.552	1.00	14.46	CATC
	ATOM	2836	O	LEU	C	378	30.901	29.532	10.679	1.00	14.29	CATC
	ATOM	2837	CB	LEU	C	378	32.679	31.902	11.478	1.00	15.13	CATC
	ATOM	2838	CG	LEU	C	378	32.141	32.404	12.816	1.00	16.89	CATC
45	ATOM	2839	CD1	LEU	C	378	33.242	32.355	13.885	1.00	17.72	CATC
	ATOM	2840	CD2	LEU	C	378	31.654	33.838	12.633	1.00	15.43	CATC
	ATOM	2841	N	THR	C	379	31.702	28.913	12.690	1.00	13.78	CATC
	ATOM	2842	CA	THR	C	379	30.534	28.123	13.058	1.00	14.91	CATC
	ATOM	2844	C	THR	C	379	30.257	28.424	14.540	1.00	14.82	CATC
50	ATOM	2845	O	THR	C	379	31.086	29.042	15.211	1.00	12.88	CATC
	ATOM	2846	CB	THR	C	379	30.788	26.617	12.870	1.00	15.57	CATC
	ATOM	2847	OG1	THR	C	379	31.984	26.253	13.563	1.00	18.43	CATC
	ATOM	2849	CG2	THR	C	379	30.935	26.271	11.384	1.00	15.56	CATC
	ATOM	2850	N	ASN	C	380	29.079	28.069	15.036	1.00	13.12	CATC
55	ATOM	2851	CA	ASN	C	380	28.793	28.304	16.452	1.00	14.46	CATC
	ATOM	2853	C	ASN	C	380	27.791	27.326	17.024	1.00	13.99	CATC
	ATOM	2854	O	ASN	C	380	27.387	27.457	18.179	1.00	15.83	CATC
	ATOM	2855	CB	ASN	C	380	28.325	29.745	16.704	1.00	14.15	CATC
	ATOM	2856	CG	ASN	C	380	27.013	30.068	16.009	1.00	15.07	CATC
60	ATOM	2857	OD1	ASN	C	380	26.375	29.191	15.433	1.00	13.68	CATC
	ATOM	2858	ND2	ASN	C	380	26.593	31.331	16.082	1.00	14.79	CATC
	ATOM	2861	N	HIS	C	381	27.430	26.316	16.238	1.00	14.04	CATC
	ATOM	2862	CA	HIS	C	381	26.463	25.322	16.683	1.00	12.98	CATC
	ATOM	2864	C	HIS	C	381	26.680	23.959	16.027	1.00	14.70	CATC
65	ATOM	2865	O	HIS	C	381	26.693	23.836	14.794	1.00	14.84	CATC
	ATOM	2866	CB	HIS	C	381	25.040	25.823	16.400	1.00	11.78	CATC
	ATOM	2867	CG	HIS	C	381	23.975	25.037	17.099	1.00	13.37	CATC
	ATOM	2868	ND1	HIS	C	381	22.796	24.677	16.489	1.00	18.24	CATC
	ATOM	2869	CE1	HIS	C	381	22.057	23.977	17.333	1.00	16.00	CATC
70	ATOM	2870	NE2	HIS	C	381	22.718	23.874	18.471	1.00	15.72	CATC
	ATOM	2871	CD2	HIS	C	381	23.919	24.529	18.353	1.00	11.96	CATC
	ATOM	2874	N	ALA	C	382	26.835	22.933	16.858	1.00	11.38	CATC
	ATOM	2875	CA	ALA	C	382	27.041	21.582	16.366	1.00	11.70	CATC
	ATOM	2877	C	ALA	C	382	25.726	20.801	16.389	1.00	13.76	CATC
	ATOM	2878	O	ALA	C	382	24.997	20.839	17.383	1.00	12.09	CATC

	ATOM	2879	CB	ALA	C	382	28.102	20.883	17.198	1.00	9.23	CATC
	ATOM	2880	N	VAL	C	383	25.443	20.077	15.301	1.00	13.96	CATC
	ATOM	2881	CA	VAL	C	383	24.216	19.299	15.159	1.00	13.63	CATC
5	ATOM	2883	C	VAL	C	383	24.460	17.960	14.442	1.00	15.07	CATC
	ATOM	2884	O	VAL	C	383	25.598	17.652	14.103	1.00	18.14	CATC
	ATOM	2885	CB	VAL	C	383	23.101	20.131	14.433	1.00	16.38	CATC
	ATOM	2886	CG1	VAL	C	383	22.580	21.235	15.363	1.00	11.23	CATC
	ATOM	2887	CG2	VAL	C	383	23.622	20.741	13.113	1.00	10.90	CATC
10	ATOM	2888	N	LEU	C	384	23.388	17.180	14.228	1.00	13.47	CATC
	ATOM	2889	CA	LEU	C	384	23.440	15.848	13.600	1.00	13.61	CATC
	ATOM	2891	C	LEU	C	384	22.737	15.783	12.224	1.00	15.04	CATC
	ATOM	2892	O	LEU	C	384	21.517	15.934	12.126	1.00	12.07	CATC
	ATOM	2893	CB	LEU	C	384	22.742	14.830	14.515	1.00	12.07	CATC
15	ATOM	2894	CG	LEU	C	384	23.199	13.385	14.732	1.00	11.73	CATC
	ATOM	2895	CD1	LEU	C	384	22.056	12.431	14.548	1.00	11.27	CATC
	ATOM	2896	CD2	LEU	C	384	24.374	13.033	13.871	1.00	9.85	CATC
	ATOM	2897	N	LEU	C	385	23.501	15.488	11.180	1.00	15.07	CATC
	ATOM	2898	CA	LEU	C	385	22.953	15.359	9.834	1.00	13.37	CATC
	ATOM	2900	C	LEU	C	385	22.329	13.970	9.751	1.00	13.30	CATC
20	ATOM	2901	O	LEU	C	385	22.977	12.977	10.091	1.00	16.97	CATC
	ATOM	2902	CB	LEU	C	385	24.085	15.485	8.818	1.00	13.22	CATC
	ATOM	2903	CG	LEU	C	385	23.677	15.369	7.346	1.00	15.65	CATC
	ATOM	2904	CD1	LEU	C	385	22.824	16.572	6.966	1.00	13.61	CATC
	ATOM	2905	CD2	LEU	C	385	24.934	15.285	6.461	1.00	12.63	CATC
25	ATOM	2906	N	VAL	C	386	21.066	13.882	9.353	1.00	12.97	CATC
	ATOM	2907	CA	VAL	C	386	20.423	12.568	9.274	1.00	13.09	CATC
	ATOM	2909	C	VAL	C	386	19.860	12.192	7.912	1.00	11.87	CATC
	ATOM	2910	O	VAL	C	386	19.406	11.069	7.739	1.00	11.43	CATC
	ATOM	2911	CB	VAL	C	386	19.305	12.402	10.343	1.00	12.18	CATC
30	ATOM	2912	CG1	VAL	C	386	19.886	12.567	11.739	1.00	11.86	CATC
	ATOM	2913	CG2	VAL	C	386	18.210	13.434	10.127	1.00	12.90	CATC
	ATOM	2914	N	GLY	C	387	19.866	13.123	6.957	1.00	13.02	CATC
	ATOM	2915	CA	GLY	C	387	19.335	12.822	5.634	1.00	12.85	CATC
	ATOM	2917	C	GLY	C	387	19.423	13.947	4.617	1.00	13.88	CATC
35	ATOM	2918	O	GLY	C	387	19.995	15.000	4.894	1.00	12.95	CATC
	ATOM	2919	N	TYR	C	388	18.910	13.710	3.413	1.00	15.18	CATC
	ATOM	2920	CA	TYR	C	388	18.891	14.739	2.360	1.00	17.17	CATC
	ATOM	2922	C	TYR	C	388	17.751	14.509	1.366	1.00	14.90	CATC
	ATOM	2923	O	TYR	C	388	17.231	13.401	1.233	1.00	13.16	CATC
40	ATOM	2924	CB	TYR	C	388	20.233	14.827	1.605	1.00	17.23	CATC
	ATOM	2925	CG	TYR	C	388	20.617	13.579	0.842	1.00	19.84	CATC
	ATOM	2926	CD1	TYR	C	388	20.049	13.293	-0.404	1.00	21.59	CATC
	ATOM	2927	CE1	TYR	C	388	20.379	12.128	-1.095	1.00	21.36	CATC
	ATOM	2928	CZ	TYR	C	388	21.287	11.240	-0.541	1.00	22.46	CATC
45	ATOM	2929	OH	TYR	C	388	21.572	10.067	-1.186	1.00	24.44	CATC
	ATOM	2931	CE2	TYR	C	388	21.875	11.505	0.689	1.00	20.08	CATC
	ATOM	2932	CD2	TYR	C	388	21.535	12.669	1.373	1.00	20.16	CATC
	ATOM	2933	N	GLY	C	389	17.391	15.562	0.649	1.00	13.98	CATC
50	ATOM	2934	CA	GLY	C	389	16.330	15.451	-0.321	1.00	15.70	CATC
	ATOM	2936	C	GLY	C	389	16.355	16.626	-1.267	1.00	16.35	CATC
	ATOM	2937	O	GLY	C	389	17.304	17.411	-1.269	1.00	13.90	CATC
	ATOM	2938	N	THR	C	390	15.300	16.738	-2.065	1.00	20.83	CATC
	ATOM	2939	CA	THR	C	390	15.142	17.819	-3.035	1.00	23.29	CATC
	ATOM	2941	C	THR	C	390	13.683	18.248	-3.046	1.00	24.74	CATC
55	ATOM	2942	O	THR	C	390	12.798	17.419	-3.189	1.00	21.04	CATC
	ATOM	2943	CB	THR	C	390	15.475	17.346	-4.464	1.00	24.24	CATC
	ATOM	2944	OG1	THR	C	390	16.770	16.744	-4.484	1.00	24.72	CATC
	ATOM	2946	CG2	THR	C	390	15.434	18.509	-5.433	1.00	24.94	CATC
	ATOM	2947	N	ASP	C	391	13.438	19.540	-2.880	1.00	31.11	CATC
60	ATOM	2948	CA	ASP	C	391	12.085	20.080	-2.896	1.00	36.56	CATC
	ATOM	2950	C	ASP	C	391	11.568	19.935	-4.329	1.00	40.68	CATC
	ATOM	2951	O	ASP	C	391	12.077	20.597	-5.228	1.00	39.53	CATC
	ATOM	2952	CB	ASP	C	391	12.135	21.557	-2.509	1.00	36.58	CATC
	ATOM	2953	CG	ASP	C	391	10.775	22.132	-2.234	1.00	38.03	CATC
65	ATOM	2954	OD1	ASP	C	391	10.289	22.937	-3.046	1.00	37.34	CATC
	ATOM	2955	OD2	ASP	C	391	10.192	21.785	-1.192	1.00	41.87	CATC
	ATOM	2956	N	SER	C	392	10.576	19.073	-4.546	1.00	45.92	CATC
	ATOM	2957	CA	SER	C	392	10.045	18.847	-5.896	1.00	50.00	CATC
	ATOM	2959	C	SER	C	392	9.687	20.121	-6.665	1.00	51.13	CATC
70	ATOM	2960	O	SER	C	392	10.110	20.294	-7.803	1.00	55.22	CATC
	ATOM	2961	CB	SER	C	392	8.838	17.903	-5.870	1.00	49.87	CATC
	ATOM	2962	OG	SER	C	392	7.663	18.565	-5.426	1.00	53.29	CATC
	ATOM	2964	N	ALA	C	393	8.928	21.014	-6.041	1.00	51.18	CATC
	ATOM	2965	CA	ALA	C	393	8.517	22.248	-6.693	1.00	51.73	CATC

	ATOM	2967	C	ALA	C	393	9.636	23.262	-6.932	1.00	51.99	CATC
	ATOM	2968	O	ALA	C	393	9.859	23.707	-8.066	1.00	50.68	CATC
	ATOM	2969	CB	ALA	C	393	7.393	22.893	-5.908	1.00	53.90	CATC
5	ATOM	2970	N	SER	C	394	10.313	23.646	-5.854	1.00	51.01	CATC
	ATOM	2971	CA	SER	C	394	11.383	24.637	-5.916	1.00	49.22	CATC
	ATOM	2973	C	SER	C	394	12.681	24.096	-6.495	1.00	47.43	CATC
	ATOM	2974	O	SER	C	394	13.544	24.867	-6.915	1.00	46.44	CATC
	ATOM	2975	CB	SER	C	394	11.637	25.194	-4.524	1.00	49.50	CATC
10	ATOM	2976	OG	SER	C	394	12.436	26.355	-4.574	1.00	53.19	CATC
	ATOM	2978	N	GLY	C	395	12.814	22.770	-6.498	1.00	46.94	CATC
	ATOM	2979	CA	GLY	C	395	14.010	22.116	-7.009	1.00	43.62	CATC
	ATOM	2981	C	GLY	C	395	15.246	22.330	-6.147	1.00	41.82	CATC
	ATOM	2982	O	GLY	C	395	16.349	21.941	-6.530	1.00	40.96	CATC
15	ATOM	2983	N	MET	C	396	15.065	22.929	-4.974	1.00	39.58	CATC
	ATOM	2984	CA	MET	C	396	16.181	23.205	-4.075	1.00	37.83	CATC
	ATOM	2986	C	MET	C	396	16.543	21.992	-3.217	1.00	30.65	CATC
	ATOM	2987	O	MET	C	396	15.671	21.381	-2.589	1.00	25.82	CATC
	ATOM	2988	CB	MET	C	396	15.839	24.397	-3.179	1.00	45.13	CATC
20	ATOM	2989	CG	MET	C	396	17.024	25.089	-2.524	1.00	46.71	CATC
	ATOM	2990	SD	MET	C	396	16.420	26.248	-1.266	1.00	56.80	CATC
	ATOM	2991	CE	MET	C	396	17.454	27.735	-1.555	1.00	52.96	CATC
	ATOM	2992	N	ASP	C	397	17.824	21.623	-3.240	1.00	26.96	CATC
	ATOM	2993	CA	ASP	C	397	18.314	20.500	-2.442	1.00	23.98	CATC
25	ATOM	2995	C	ASP	C	397	18.418	20.913	-0.995	1.00	20.23	CATC
	ATOM	2996	O	ASP	C	397	18.666	22.079	-0.688	1.00	17.45	CATC
	ATOM	2997	CB	ASP	C	397	19.687	20.044	-2.903	1.00	25.61	CATC
	ATOM	2998	CG	ASP	C	397	19.656	19.413	-4.263	1.00	27.80	CATC
	ATOM	2999	OD1	ASP	C	397	20.623	19.611	-5.006	1.00	27.52	CATC
30	ATOM	3000	OD2	ASP	C	397	18.677	18.712	-4.592	1.00	29.94	CATC
	ATOM	3001	N	TYR	C	398	18.237	19.952	-0.104	1.00	18.46	CATC
	ATOM	3002	CA	TYR	C	398	18.326	20.250	1.316	1.00	17.55	CATC
	ATOM	3004	C	TYR	C	398	18.907	19.096	2.124	1.00	16.23	CATC
	ATOM	3005	O	TYR	C	398	18.991	17.967	1.631	1.00	13.10	CATC
35	ATOM	3006	CB	TYR	C	398	16.940	20.603	1.840	1.00	17.09	CATC
	ATOM	3007	CG	TYR	C	398	15.921	19.507	1.663	1.00	16.86	CATC
	ATOM	3008	CD1	TYR	C	398	15.869	18.437	2.549	1.00	15.91	CATC
	ATOM	3009	CE1	TYR	C	398	14.887	17.459	2.441	1.00	18.52	CATC
	ATOM	3010	CZ	TYR	C	398	13.938	17.547	1.435	1.00	19.59	CATC
40	ATOM	3011	OH	TYR	C	398	12.957	16.589	1.352	1.00	20.57	CATC
	ATOM	3013	CE2	TYR	C	398	13.969	18.597	0.533	1.00	17.53	CATC
	ATOM	3014	CD2	TYR	C	398	14.965	19.572	0.651	1.00	18.00	CATC
	ATOM	3015	N	TRP	C	399	19.367	19.418	3.333	1.00	16.10	CATC
	ATOM	3016	CA	TRP	C	399	19.878	18.440	4.288	1.00	12.06	CATC
45	ATOM	3018	C	TRP	C	399	18.781	18.357	5.350	1.00	14.30	CATC
	ATOM	3019	O	TRP	C	399	18.079	19.340	5.587	1.00	15.08	CATC
	ATOM	3020	CB	TRP	C	399	21.132	18.958	4.997	1.00	7.86	CATC
	ATOM	3021	CG	TRP	C	399	22.363	19.099	4.181	1.00	8.47	CATC
	ATOM	3022	CD1	TRP	C	399	23.038	20.253	3.920	1.00	7.43	CATC
50	ATOM	3023	NE1	TRP	C	399	24.183	19.983	3.221	1.00	6.52	CATC
	ATOM	3024	CE2	TRP	C	399	24.265	18.635	3.009	1.00	7.61	CATC
	ATOM	3025	CD2	TRP	C	399	23.131	18.045	3.599	1.00	5.00	CATC
	ATOM	3027	CE3	TRP	C	399	22.974	16.658	3.526	1.00	8.17	CATC
	ATOM	3028	CZ3	TRP	C	399	23.941	15.913	2.869	1.00	7.97	CATC
55	ATOM	3029	CH2	TRP	C	399	25.058	16.531	2.290	1.00	9.92	CATC
	ATOM	3030	CZ2	TRP	C	399	25.236	17.889	2.350	1.00	8.14	CATC
	ATOM	3031	N	ILE	C	400	18.619	17.193	5.967	1.00	13.49	CATC
	ATOM	3032	CA	ILE	C	400	17.662	17.022	7.060	1.00	13.80	CATC
	ATOM	3034	C	ILE	C	400	18.543	16.935	8.314	1.00	14.23	CATC
60	ATOM	3035	O	ILE	C	400	19.338	16.001	8.449	1.00	15.65	CATC
	ATOM	3036	CB	ILE	C	400	16.880	15.711	6.916	1.00	13.20	CATC
	ATOM	3037	CG2	ILE	C	400	15.947	15.516	8.111	1.00	12.03	CATC
	ATOM	3038	CG1	ILE	C	400	16.107	15.716	5.594	1.00	13.81	CATC
	ATOM	3039	CD1	ILE	C	400	15.357	14.417	5.314	1.00	12.10	CATC
65	ATOM	3040	N	VAL	C	401	18.420	17.911	9.207	1.00	13.82	CATC
	ATOM	3041	CA	VAL	C	401	19.244	17.970	10.421	1.00	13.59	CATC
	ATOM	3043	C	VAL	C	401	18.480	17.913	11.750	1.00	15.27	CATC
	ATOM	3044	O	VAL	C	401	17.438	18.544	11.904	1.00	16.25	CATC
	ATOM	3045	CB	VAL	C	401	20.080	19.258	10.427	1.00	11.42	CATC
70	ATOM	3046	CG1	VAL	C	401	21.185	19.181	11.488	1.00	12.46	CATC
	ATOM	3047	CG2	VAL	C	401	20.659	19.509	9.046	1.00	10.71	CATC
	ATOM	3048	N	LYS	C	402	19.042	17.186	12.714	1.00	14.15	CATC
	ATOM	3049	CA	LYS	C	402	18.473	17.040	14.061	1.00	15.33	CATC
	ATOM	3051	C	LYS	C	402	19.122	18.073	14.999	1.00	14.57	CATC
	ATOM	3052	O	LYS	C	402	20.340	18.080	15.182	1.00	13.81	CATC

	ATOM	3053	CB	LYS	C	402	18.740	15.618	14.593	1.00	15.74	CATC
	ATOM	3054	CG	LYS	C	402	18.111	15.287	15.951	1.00	17.02	CATC
	ATOM	3055	CD	LYS	C	402	18.975	14.270	16.695	1.00	18.06	CATC
5	ATOM	3056	CE	LYS	C	402	18.166	13.419	17.661	1.00	19.28	CATC
	ATOM	3057	NZ	LYS	C	402	18.974	12.348	18.342	1.00	17.54	CATC
	ATOM	3061	N	ASN	C	403	18.316	18.955	15.577	1.00	11.36	CATC
	ATOM	3062	CA	ASN	C	403	18.856	19.965	16.471	1.00	9.56	CATC
	ATOM	3064	C	ASN	C	403	18.776	19.435	17.900	1.00	11.88	CATC
10	ATOM	3065	O	ASN	C	403	18.231	18.350	18.128	1.00	12.70	CATC
	ATOM	3066	CB	ASN	C	403	18.055	21.253	16.326	1.00	9.92	CATC
	ATOM	3067	CG	ASN	C	403	18.829	22.473	16.769	1.00	10.88	CATC
	ATOM	3068	OD1	ASN	C	403	19.844	22.366	17.445	1.00	9.89	CATC
	ATOM	3069	ND2	ASN	C	403	18.377	23.640	16.349	1.00	12.41	CATC
15	ATOM	3072	N	SER	C	404	19.356	20.158	18.854	1.00	12.35	CATC
	ATOM	3073	CA	SER	C	404	19.301	19.738	20.254	1.00	12.84	CATC
	ATOM	3075	C	SER	C	404	18.629	20.799	21.140	1.00	15.22	CATC
	ATOM	3076	O	SER	C	404	19.055	21.037	22.278	1.00	11.90	CATC
	ATOM	3077	CB	SER	C	404	20.705	19.379	20.766	1.00	9.55	CATC
20	ATOM	3078	OG	SER	C	404	21.648	20.373	20.406	1.00	10.09	CATC
	ATOM	3080	N	TRP	C	405	17.583	21.436	20.601	1.00	14.65	CATC
	ATOM	3081	CA	TRP	C	405	16.831	22.474	21.310	1.00	13.10	CATC
	ATOM	3083	C	TRP	C	405	15.428	21.967	21.642	1.00	13.87	CATC
	ATOM	3084	O	TRP	C	405	14.492	22.749	21.800	1.00	12.34	CATC
25	ATOM	3085	CB	TRP	C	405	16.747	23.754	20.464	1.00	11.42	CATC
	ATOM	3086	CG	TRP	C	405	18.076	24.418	20.195	1.00	12.07	CATC
	ATOM	3087	CD1	TRP	C	405	19.257	24.197	20.852	1.00	12.55	CATC
	ATOM	3088	NE1	TRP	C	405	20.234	25.040	20.372	1.00	13.27	CATC
	ATOM	3089	CE2	TRP	C	405	19.702	25.824	19.383	1.00	13.61	CATC
30	ATOM	3090	CD2	TRP	C	405	18.342	25.458	19.238	1.00	13.87	CATC
	ATOM	3092	CE3	TRP	C	405	17.560	26.123	18.275	1.00	15.89	CATC
	ATOM	3093	CZ3	TRP	C	405	18.156	27.121	17.500	1.00	15.34	CATC
	ATOM	3094	CH2	TRP	C	405	19.513	27.457	17.673	1.00	14.59	CATC
	ATOM	3095	CZ2	TRP	C	405	20.298	26.821	18.603	1.00	13.93	CATC
35	ATOM	3096	N	GLY	C	406	15.301	20.651	21.764	1.00	14.45	CATC
	ATOM	3097	CA	GLY	C	406	14.021	20.038	22.079	1.00	14.68	CATC
	ATOM	3099	C	GLY	C	406	13.119	19.845	20.870	1.00	17.78	CATC
	ATOM	3100	O	GLY	C	406	13.360	20.409	19.795	1.00	15.92	CATC
	ATOM	3101	N	THR	C	407	12.065	19.056	21.048	1.00	17.36	CATC
40	ATOM	3102	CA	THR	C	407	11.125	18.786	19.970	1.00	20.02	CATC
	ATOM	3104	C	THR	C	407	10.134	19.916	19.758	1.00	21.61	CATC
	ATOM	3105	O	THR	C	407	9.371	19.882	18.797	1.00	22.45	CATC
	ATOM	3106	CB	THR	C	407	10.310	17.506	20.211	1.00	23.11	CATC
	ATOM	3107	OG1	THR	C	407	9.462	17.685	21.355	1.00	25.95	CATC
45	ATOM	3109	CG2	THR	C	407	11.223	16.316	20.432	1.00	27.12	CATC
	ATOM	3110	N	GLY	C	408	10.122	20.896	20.661	1.00	23.30	CATC
	ATOM	3111	CA	GLY	C	408	9.208	22.020	20.535	1.00	21.71	CATC
	ATOM	3113	C	GLY	C	408	9.703	23.044	19.534	1.00	23.68	CATC
	ATOM	3114	O	GLY	C	408	9.008	24.009	19.225	1.00	28.18	CATC
50	ATOM	3115	N	TRP	C	409	10.897	22.824	18.996	1.00	22.87	CATC
	ATOM	3116	CA	TRP	C	409	11.485	23.748	18.031	1.00	21.84	CATC
	ATOM	3118	C	TRP	C	409	11.464	23.167	16.621	1.00	21.01	CATC
	ATOM	3119	O	TRP	C	409	11.589	21.959	16.442	1.00	22.72	CATC
	ATOM	3120	CB	TRP	C	409	12.925	24.060	18.444	1.00	20.00	CATC
55	ATOM	3121	CG	TRP	C	409	13.646	24.972	17.515	1.00	18.29	CATC
	ATOM	3122	CD1	TRP	C	409	13.697	26.330	17.582	1.00	16.94	CATC
	ATOM	3123	NE1	TRP	C	409	14.453	26.825	16.548	1.00	17.54	CATC
	ATOM	3124	CE2	TRP	C	409	14.911	25.781	15.787	1.00	18.59	CATC
	ATOM	3125	CD2	TRP	C	409	14.423	24.593	16.370	1.00	17.99	CATC
60	ATOM	3127	CE3	TRP	C	409	14.747	23.363	15.776	1.00	17.17	CATC
	ATOM	3128	CZ3	TRP	C	409	15.533	23.361	14.634	1.00	17.86	CATC
	ATOM	3129	CH2	TRP	C	409	16.003	24.563	14.077	1.00	18.49	CATC
	ATOM	3130	CZ2	TRP	C	409	15.705	25.779	14.639	1.00	16.67	CATC
	ATOM	3131	N	GLY	C	410	11.291	24.039	15.631	1.00	23.40	CATC
65	ATOM	3132	CA	GLY	C	410	11.290	23.638	14.230	1.00	21.15	CATC
	ATOM	3134	C	GLY	C	410	10.334	22.530	13.833	1.00	21.16	CATC
	ATOM	3135	O	GLY	C	410	9.182	22.491	14.279	1.00	20.87	CATC
	ATOM	3136	N	GLU	C	411	10.813	21.621	12.990	1.00	17.79	CATC
	ATOM	3137	CA	GLU	C	411	9.995	20.510	12.534	1.00	18.03	CATC
70	ATOM	3139	C	GLU	C	411	10.211	19.317	13.478	1.00	17.43	CATC
	ATOM	3140	O	GLU	C	411	10.964	18.390	13.184	1.00	21.02	CATC
	ATOM	3141	CB	GLU	C	411	10.339	20.189	11.065	1.00	17.48	CATC
	ATOM	3142	CG	GLU	C	411	10.358	21.448	10.187	1.00	19.82	CATC
	ATOM	3143	CD	GLU	C	411	10.539	21.196	8.687	1.00	23.09	CATC
	ATOM	3144	OE1	GLU	C	411	11.374	20.357	8.289	1.00	21.91	CATC

	ATOM	3145	OE2	GLU	C	411	9.865	21.879	7.888	1.00	24.03	CATC
	ATOM	3146	N	ASN	C	412	9.580	19.375	14.647	1.00	15.79	CATC
	ATOM	3147	CA	ASN	C	412	9.700	18.326	15.660	1.00	17.21	CATC
5	ATOM	3149	C	ASN	C	412	11.141	18.112	16.126	1.00	15.54	CATC
	ATOM	3150	O	ASN	C	412	11.569	16.991	16.396	1.00	16.09	CATC
	ATOM	3151	CB	ASN	C	412	9.083	17.015	15.167	1.00	21.67	CATC
	ATOM	3152	CG	ASN	C	412	7.579	17.132	14.931	1.00	26.53	CATC
	ATOM	3153	OD1	ASN	C	412	6.869	17.754	15.720	1.00	30.81	CATC
10	ATOM	3154	ND2	ASN	C	412	7.091	16.548	13.839	1.00	25.53	CATC
	ATOM	3157	N	GLY	C	413	11.873	19.210	16.263	1.00	15.72	CATC
	ATOM	3158	CA	GLY	C	413	13.257	19.129	16.699	1.00	15.71	CATC
	ATOM	3160	C	GLY	C	413	14.259	19.144	15.558	1.00	16.08	CATC
	ATOM	3161	O	GLY	C	413	15.456	19.303	15.797	1.00	13.59	CATC
15	ATOM	3162	N	TYR	C	414	13.772	18.983	14.325	1.00	17.51	CATC
	ATOM	3163	CA	TYR	C	414	14.623	18.962	13.133	1.00	16.79	CATC
	ATOM	3165	C	TYR	C	414	14.476	20.209	12.276	1.00	17.55	CATC
	ATOM	3166	O	TYR	C	414	13.586	21.034	12.486	1.00	17.01	CATC
	ATOM	3167	CB	TYR	C	414	14.282	17.752	12.254	1.00	15.07	CATC
20	ATOM	3168	CG	TYR	C	414	14.651	16.420	12.848	1.00	15.78	CATC
	ATOM	3169	CD1	TYR	C	414	13.889	15.852	13.869	1.00	15.19	CATC
	ATOM	3170	CE1	TYR	C	414	14.225	14.618	14.415	1.00	15.92	CATC
	ATOM	3171	CZ	TYR	C	414	15.335	13.940	13.939	1.00	16.44	CATC
	ATOM	3172	OH	TYR	C	414	15.692	12.731	14.488	1.00	19.77	CATC
25	ATOM	3174	CE2	TYR	C	414	16.104	14.483	12.920	1.00	17.02	CATC
	ATOM	3175	CD2	TYR	C	414	15.760	15.718	12.386	1.00	15.18	CATC
	ATOM	3176	N	PHE	C	415	15.367	20.337	11.304	1.00	15.49	CATC
	ATOM	3177	CA	PHE	C	415	15.303	21.437	10.361	1.00	18.59	CATC
	ATOM	3179	C	PHE	C	415	15.932	21.015	9.040	1.00	18.25	CATC
30	ATOM	3180	O	PHE	C	415	16.758	20.090	8.993	1.00	16.22	CATC
	ATOM	3181	CB	PHE	C	415	15.973	22.711	10.911	1.00	20.33	CATC
	ATOM	3182	CG	PHE	C	415	17.473	22.623	11.048	1.00	23.31	CATC
	ATOM	3183	CD1	PHE	C	415	18.055	22.148	12.228	1.00	23.46	CATC
	ATOM	3184	CE1	PHE	C	415	19.455	22.135	12.384	1.00	22.83	CATC
35	ATOM	3185	CZ	PHE	C	415	20.281	22.597	11.350	1.00	22.31	CATC
	ATOM	3186	CE2	PHE	C	415	19.711	23.066	10.167	1.00	22.18	CATC
	ATOM	3187	CD2	PHE	C	415	18.312	23.076	10.020	1.00	23.63	CATC
	ATOM	3188	N	ARG	C	416	15.451	21.606	7.955	1.00	15.31	CATC
	ATOM	3189	CA	ARG	C	416	16.033	21.323	6.661	1.00	15.56	CATC
40	ATOM	3191	C	ARG	C	416	16.779	22.581	6.279	1.00	14.30	CATC
	ATOM	3192	O	ARG	C	416	16.427	23.674	6.730	1.00	14.25	CATC
	ATOM	3193	CB	ARG	C	416	14.969	20.908	5.649	1.00	14.85	CATC
	ATOM	3194	CG	ARG	C	416	14.484	19.485	5.926	1.00	15.74	CATC
	ATOM	3195	CD	ARG	C	416	13.243	19.144	5.147	1.00	17.81	CATC
45	ATOM	3196	NE	ARG	C	416	12.147	20.037	5.495	1.00	20.53	CATC
	ATOM	3197	CZ	ARG	C	416	11.176	20.399	4.664	1.00	22.51	CATC
	ATOM	3198	NH1	ARG	C	416	10.220	21.213	5.088	1.00	24.43	CATC
	ATOM	3199	NH2	ARG	C	416	11.173	19.972	3.407	1.00	23.81	CATC
	ATOM	3205	N	ILE	C	417	17.882	22.417	5.564	1.00	12.44	CATC
50	ATOM	3206	CA	ILE	C	417	18.696	23.560	5.189	1.00	12.83	CATC
	ATOM	3208	C	ILE	C	417	19.274	23.327	3.797	1.00	14.27	CATC
	ATOM	3209	O	ILE	C	417	19.571	22.191	3.431	1.00	15.21	CATC
	ATOM	3210	CB	ILE	C	417	19.822	23.795	6.239	1.00	11.23	CATC
	ATOM	3211	CG2	ILE	C	417	20.736	22.564	6.337	1.00	11.32	CATC
55	ATOM	3212	CG1	ILE	C	417	20.602	25.067	5.930	1.00	10.78	CATC
	ATOM	3213	CD1	ILE	C	417	21.691	25.386	6.952	1.00	11.28	CATC
	ATOM	3214	N	ARG	C	418	19.380	24.406	3.023	1.00	14.03	CATC
	ATOM	3215	CA	ARG	C	418	19.892	24.370	1.660	1.00	15.52	CATC
	ATOM	3217	C	ARG	C	418	21.173	23.573	1.617	1.00	15.37	CATC
60	ATOM	3218	O	ARG	C	418	22.082	23.814	2.402	1.00	17.57	CATC
	ATOM	3219	CB	ARG	C	418	20.153	25.789	1.160	1.00	18.64	CATC
	ATOM	3220	CG	ARG	C	418	19.942	25.991	-0.335	1.00	22.71	CATC
	ATOM	3221	CD	ARG	C	418	21.126	25.527	-1.163	0.00	56.71	CATC
	ATOM	3222	NE	ARG	C	418	20.901	25.736	-2.591	0.00	56.30	CATC
65	ATOM	3223	CZ	ARG	C	418	20.751	26.930	-3.160	0.00	58.53	CATC
	ATOM	3224	NH1	ARG	C	418	20.546	27.019	-4.468	0.00	51.27	CATC
	ATOM	3225	NH2	ARG	C	418	20.810	28.035	-2.426	0.00	57.11	CATC
	ATOM	3231	N	ARG	C	419	21.219	22.620	0.693	1.00	13.58	CATC
	ATOM	3232	CA	ARG	C	419	22.353	21.728	0.499	1.00	14.55	CATC
70	ATOM	3234	C	ARG	C	419	23.068	22.051	-0.804	1.00	17.58	CATC
	ATOM	3235	O	ARG	C	419	22.442	22.418	-1.793	1.00	20.94	CATC
	ATOM	3236	CB	ARG	C	419	21.844	20.285	0.448	1.00	12.25	CATC
	ATOM	3237	CG	ARG	C	419	22.782	19.302	-0.234	1.00	15.75	CATC
	ATOM	3238	CD	ARG	C	419	22.389	17.868	0.044	1.00	15.30	CATC
	ATOM	3239	NE	ARG	C	419	21.129	17.498	-0.595	1.00	19.31	CATC

	ATOM	3240	CZ	ARG	C	419	21.021	16.967	-1.812	1.00	19.42	CATC
	ATOM	3241	NH1	ARG	C	419	22.104	16.747	-2.545	1.00	17.42	CATC
	ATOM	3242	NH2	ARG	C	419	19.831	16.613	-2.276	1.00	17.46	CATC
	ATOM	3248	N	GLY	C	420	24.377	21.874	-0.828	1.00	17.17	CATC
5	ATOM	3249	CA	GLY	C	420	25.112	22.145	-2.051	1.00	19.78	CATC
	ATOM	3251	C	GLY	C	420	25.770	23.506	-2.216	1.00	20.00	CATC
	ATOM	3252	O	GLY	C	420	26.528	23.701	-3.166	1.00	20.74	CATC
	ATOM	3253	N	THR	C	421	25.512	24.438	-1.303	1.00	18.38	CATC
	ATOM	3254	CA	THR	C	421	26.112	25.767	-1.394	1.00	17.06	CATC
10	ATOM	3256	C	THR	C	421	26.844	26.139	-0.123	1.00	15.35	CATC
	ATOM	3257	O	THR	C	421	27.051	27.322	0.136	1.00	15.01	CATC
	ATOM	3258	CB	THR	C	421	25.057	26.828	-1.615	1.00	19.56	CATC
	ATOM	3259	OG1	THR	C	421	23.965	26.596	-0.718	1.00	21.49	CATC
	ATOM	3261	CG2	THR	C	421	24.549	26.765	-3.042	1.00	22.34	CATC
15	ATOM	3262	N	ASP	C	422	27.213	25.128	0.667	1.00	14.19	CATC
	ATOM	3263	CA	ASP	C	422	27.903	25.318	1.944	1.00	14.49	CATC
	ATOM	3265	C	ASP	C	422	27.169	26.364	2.789	1.00	13.67	CATC
	ATOM	3266	O	ASP	C	422	27.777	27.254	3.376	1.00	14.30	CATC
	ATOM	3267	CB	ASP	C	422	29.354	25.722	1.706	1.00	13.05	CATC
20	ATOM	3268	CG	ASP	C	422	30.201	25.682	2.981	1.00	16.54	CATC
	ATOM	3269	OD1	ASP	C	422	29.903	24.903	3.921	1.00	16.49	CATC
	ATOM	3270	OD2	ASP	C	422	31.195	26.430	3.022	1.00	12.83	CATC
	ATOM	3271	N	GLU	C	423	25.847	26.230	2.829	1.00	13.04	CATC
	ATOM	3272	CA	GLU	C	423	24.961	27.131	3.559	1.00	15.88	CATC
25	ATOM	3274	C	GLU	C	423	25.375	27.289	5.022	1.00	14.33	CATC
	ATOM	3275	O	GLU	C	423	25.365	26.322	5.784	1.00	11.49	CATC
	ATOM	3276	CB	GLU	C	423	23.523	26.608	3.474	1.00	16.72	CATC
	ATOM	3277	CG	GLU	C	423	22.466	27.530	4.068	1.00	19.23	CATC
	ATOM	3278	CD	GLU	C	423	22.413	28.865	3.369	1.00	19.85	CATC
30	ATOM	3279	OE1	GLU	C	423	22.515	29.894	4.056	1.00	20.48	CATC
	ATOM	3280	OE2	GLU	C	423	22.289	28.888	2.128	1.00	21.87	CATC
	ATOM	3281	N	CYS	C	424	25.757	28.510	5.389	1.00	14.20	CATC
	ATOM	3282	CA	CYS	C	424	26.182	28.828	6.752	1.00	16.47	CATC
	ATOM	3284	C	CYS	C	424	27.298	27.914	7.267	1.00	17.20	CATC
35	ATOM	3285	O	CYS	C	424	27.341	27.589	8.454	1.00	20.41	CATC
	ATOM	3286	CB	CYS	C	424	24.977	28.798	7.697	1.00	16.39	CATC
	ATOM	3287	SG	CYS	C	424	23.769	30.111	7.349	1.00	20.74	CATC
	ATOM	3288	N	ALA	C	425	28.195	27.512	6.366	1.00	15.06	CATC
	ATOM	3289	CA	ALA	C	425	29.327	26.637	6.688	1.00	15.54	CATC
40	ATOM	3291	C	ALA	C	425	28.912	25.224	7.100	1.00	13.47	CATC
	ATOM	3292	O	ALA	C	425	29.685	24.507	7.733	1.00	15.07	CATC
	ATOM	3293	CB	ALA	C	425	30.219	27.275	7.777	1.00	11.58	CATC
	ATOM	3294	N	ILE	C	426	27.711	24.800	6.726	1.00	13.51	CATC
	ATOM	3295	CA	ILE	C	426	27.276	23.459	7.112	1.00	14.47	CATC
45	ATOM	3297	C	ILE	C	426	28.009	22.311	6.399	1.00	13.56	CATC
	ATOM	3298	O	ILE	C	426	27.936	21.153	6.825	1.00	13.04	CATC
	ATOM	3299	CB	ILE	C	426	25.736	23.284	7.019	1.00	17.88	CATC
	ATOM	3300	CG2	ILE	C	426	25.299	23.041	5.562	1.00	16.99	CATC
	ATOM	3301	CG1	ILE	C	426	25.310	22.137	7.956	1.00	17.91	CATC
50	ATOM	3302	CD1	ILE	C	426	23.853	22.082	8.305	1.00	20.62	CATC
	ATOM	3303	N	GLU	C	427	28.732	22.632	5.331	1.00	12.61	CATC
	ATOM	3304	CA	GLU	C	427	29.489	21.627	4.603	1.00	13.11	CATC
	ATOM	3306	C	GLU	C	427	30.976	21.880	4.784	1.00	14.07	CATC
	ATOM	3307	O	GLU	C	427	31.774	21.608	3.889	1.00	14.25	CATC
55	ATOM	3308	CB	GLU	C	427	29.100	21.657	3.127	1.00	13.07	CATC
	ATOM	3309	CG	GLU	C	427	27.716	21.086	2.896	1.00	14.82	CATC
	ATOM	3310	CD	GLU	C	427	27.036	21.585	1.627	1.00	14.74	CATC
	ATOM	3311	OE1	GLU	C	427	25.834	21.306	1.484	1.00	11.93	CATC
	ATOM	3312	OE2	GLU	C	427	27.687	22.231	0.774	1.00	14.93	CATC
60	ATOM	3313	N	SER	C	428	31.355	22.362	5.968	1.00	15.48	CATC
	ATOM	3314	CA	SER	C	428	32.753	22.674	6.246	1.00	15.02	CATC
	ATOM	3316	C	SER	C	428	33.452	21.828	7.295	1.00	12.32	CATC
	ATOM	3317	O	SER	C	428	34.678	21.775	7.333	1.00	13.78	CATC
	ATOM	3318	CB	SER	C	428	32.890	24.138	6.664	1.00	18.42	CATC
65	ATOM	3319	OG	SER	C	428	32.312	24.374	7.939	1.00	19.22	CATC
	ATOM	3321	N	ILE	C	429	32.693	21.166	8.155	1.00	13.03	CATC
	ATOM	3322	CA	ILE	C	429	33.329	20.426	9.232	1.00	11.82	CATC
	ATOM	3324	C	ILE	C	429	32.504	19.232	9.698	1.00	13.58	CATC
	ATOM	3325	O	ILE	C	429	32.250	19.053	10.887	1.00	10.08	CATC
70	ATOM	3326	CB	ILE	C	429	33.681	21.422	10.397	1.00	12.14	CATC
	ATOM	3327	CG2	ILE	C	429	32.424	21.990	11.042	1.00	11.57	CATC
	ATOM	3328	CG1	ILE	C	429	34.600	20.797	11.442	1.00	14.20	CATC
	ATOM	3329	CD1	ILE	C	429	35.046	21.828	12.505	1.00	11.66	CATC
	ATOM	3330	N	ALA	C	430	32.065	18.417	8.742	1.00	11.87	CATC

	ATOM	3331	CA	ALA	C	430	31.311	17.230	9.096	1.00	10.66	CATC
	ATOM	3333	C	ALA	C	430	32.333	16.272	9.704	1.00	9.44	CATC
	ATOM	3334	O	ALA	C	430	33.468	16.189	9.221	1.00	9.46	CATC
5	ATOM	3335	CB	ALA	C	430	30.653	16.616	7.866	1.00	11.16	CATC
	ATOM	3336	N	VAL	C	431	31.948	15.597	10.784	1.00	8.98	CATC
	ATOM	3337	CA	VAL	C	431	32.830	14.668	11.487	1.00	10.66	CATC
	ATOM	3339	C	VAL	C	431	32.179	13.301	11.564	1.00	12.66	CATC
	ATOM	3340	O	VAL	C	431	30.986	13.195	11.845	1.00	15.41	CATC
10	ATOM	3341	CB	VAL	C	431	33.077	15.134	12.947	1.00	11.75	CATC
	ATOM	3342	CG1	VAL	C	431	33.739	14.014	13.775	1.00	12.11	CATC
	ATOM	3343	CG2	VAL	C	431	33.922	16.374	12.961	1.00	10.84	CATC
	ATOM	3344	N	ALA	C	432	32.966	12.251	11.360	1.00	11.65	CATC
	ATOM	3345	CA	ALA	C	432	32.430	10.901	11.448	1.00	12.32	CATC
15	ATOM	3347	C	ALA	C	432	33.217	10.106	12.472	1.00	8.61	CATC
	ATOM	3348	O	ALA	C	432	34.403	10.329	12.646	1.00	9.04	CATC
	ATOM	3349	CB	ALA	C	432	32.473	10.205	10.083	1.00	13.00	CATC
	ATOM	3350	N	ALA	C	433	32.539	9.220	13.185	1.00	8.15	CATC
	ATOM	3351	CA	ALA	C	433	33.206	8.381	14.162	1.00	7.69	CATC
20	ATOM	3353	C	ALA	C	433	32.438	7.091	14.147	1.00	6.90	CATC
	ATOM	3354	O	ALA	C	433	31.259	7.077	13.828	1.00	7.35	CATC
	ATOM	3355	CB	ALA	C	433	33.182	9.027	15.550	1.00	9.71	CATC
	ATOM	3356	N	THR	C	434	33.129	5.996	14.401	1.00	7.57	CATC
	ATOM	3357	CA	THR	C	434	32.509	4.691	14.385	1.00	9.13	CATC
25	ATOM	3359	C	THR	C	434	32.508	4.137	15.787	1.00	9.81	CATC
	ATOM	3360	O	THR	C	434	33.573	3.864	16.322	1.00	14.92	CATC
	ATOM	3361	CB	THR	C	434	33.338	3.733	13.526	1.00	11.69	CATC
	ATOM	3362	OG1	THR	C	434	33.385	4.223	12.180	1.00	14.53	CATC
	ATOM	3364	CG2	THR	C	434	32.740	2.319	13.553	1.00	9.79	CATC
30	ATOM	3365	N	PRO	C	435	31.322	3.954	16.394	1.00	11.23	CATC
	ATOM	3366	CA	PRO	C	435	31.169	3.414	17.756	1.00	11.85	CATC
	ATOM	3367	CD	PRO	C	435	30.004	4.275	15.808	1.00	12.53	CATC
	ATOM	3368	C	PRO	C	435	31.291	1.891	17.771	1.00	11.39	CATC
	ATOM	3369	O	PRO	C	435	31.043	1.230	16.762	1.00	12.67	CATC
35	ATOM	3370	CB	PRO	C	435	29.743	3.816	18.116	1.00	12.37	CATC
	ATOM	3371	CG	PRO	C	435	29.020	3.656	16.810	1.00	11.48	CATC
	ATOM	3372	N	ILE	C	436	31.709	1.331	18.896	1.00	11.35	CATC
	ATOM	3373	CA	ILE	C	436	31.800	-0.109	18.998	1.00	9.37	CATC
	ATOM	3375	C	ILE	C	436	30.647	-0.554	19.879	1.00	13.42	CATC
40	ATOM	3376	O	ILE	C	436	30.659	-0.345	21.092	1.00	12.66	CATC
	ATOM	3377	CB	ILE	C	436	33.112	-0.575	19.636	1.00	11.01	CATC
	ATOM	3378	CG2	ILE	C	436	33.093	-2.105	19.764	1.00	5.28	CATC
	ATOM	3379	CG1	ILE	C	436	34.313	-0.094	18.808	1.00	8.67	CATC
	ATOM	3380	CD1	ILE	C	436	35.675	-0.484	19.382	1.00	9.25	CATC
45	ATOM	3381	N	PRO	C	437	29.620	-1.160	19.275	1.00	15.34	CATC
	ATOM	3382	CA	PRO	C	437	28.428	-1.648	19.989	1.00	14.59	CATC
	ATOM	3383	CD	PRO	C	437	29.616	-1.614	17.876	1.00	14.48	CATC
	ATOM	3384	C	PRO	C	437	28.811	-2.735	20.982	1.00	13.52	CATC
	ATOM	3385	O	PRO	C	437	29.953	-3.193	20.970	1.00	13.79	CATC
50	ATOM	3386	CB	PRO	C	437	27.581	-2.270	18.864	1.00	14.57	CATC
	ATOM	3387	CG	PRO	C	437	28.142	-1.658	17.589	1.00	16.79	CATC
	ATOM	3388	N	LYS	C	438	27.871	-3.135	21.841	1.00	11.40	CATC
	ATOM	3389	CA	LYS	C	438	28.119	-4.239	22.770	1.00	16.07	CATC
	ATOM	3391	C	LYS	C	438	27.996	-5.509	21.939	1.00	17.34	CATC
55	ATOM	3392	O	LYS	C	438	27.483	-5.469	20.826	1.00	19.33	CATC
	ATOM	3393	CB	LYS	C	438	27.056	-4.301	23.873	1.00	17.52	CATC
	ATOM	3394	CG	LYS	C	438	27.035	-3.135	24.841	1.00	21.21	CATC
	ATOM	3395	CD	LYS	C	438	25.938	-3.323	25.874	1.00	21.91	CATC
	ATOM	3396	CE	LYS	C	438	26.364	-2.765	27.213	1.00	23.92	CATC
60	ATOM	3397	NZ	LYS	C	438	25.219	-2.674	28.146	1.00	26.36	CATC
	ATOM	3401	N	LEU	C	439	28.487	-6.628	22.457	1.00	19.25	CATC
	ATOM	3402	CA	LEU	C	439	28.362	-7.896	21.746	1.00	21.37	CATC
	ATOM	3404	C	LEU	C	439	26.900	-8.332	21.826	1.00	25.17	CATC
	ATOM	3405	OT1	LEU	C	439	26.223	-7.910	22.792	1.00	27.04	CATC
65	ATOM	3406	CB	LEU	C	439	29.258	-8.972	22.375	1.00	20.34	CATC
	ATOM	3407	CG	LEU	C	439	30.744	-8.936	22.033	1.00	21.73	CATC
	ATOM	3408	CD1	LEU	C	439	31.469	-10.058	22.770	1.00	24.18	CATC
	ATOM	3409	CD2	LEU	C	439	30.920	-9.089	20.520	1.00	22.97	CATC
	ATOM	3410	OT2	LEU	C	439	26.439	-9.072	20.928	1.00	29.19	CATC
70	ATOM	3411	CL	CL	C	I1	34.883	19.051	15.188	1.00	9.97	ION
	ATOM	3412	S	SO4	I2		11.201	20.102	24.567	1.00	51.95	ION
	ATOM	3413	O1	SO4	I2		11.624	18.804	23.957	1.00	51.45	ION
	ATOM	3414	O2	SO4	I2		12.183	20.532	25.609	1.00	48.73	ION
	ATOM	3415	O3	SO4	I2		11.121	21.161	23.521	1.00	53.60	ION
	ATOM	3416	O4	SO4	I2		9.848	19.915	25.153	1.00	51.00	ION

265

	ATOM	3417	S	SO4	I3	15.888	15.570	27.160	1.00	61.45	ION
	ATOM	3418	O1	SO4	I3	17.323	15.896	27.228	1.00	62.50	ION
	ATOM	3419	O2	SO4	I3	15.478	15.170	28.505	1.00	63.45	ION
5	ATOM	3420	O3	SO4	I3	15.117	16.758	26.711	1.00	60.13	ION
	ATOM	3421	O4	SO4	I3	15.661	14.429	26.239	1.00	63.18	ION
	ATOM	3422	S	SO4	I4	55.169	6.998	26.086	1.00	62.83	ION
	ATOM	3423	O1	SO4	I4	56.009	5.958	25.361	1.00	59.77	ION
	ATOM	3424	O2	SO4	I4	54.429	6.422	27.257	1.00	58.39	ION
10	ATOM	3425	O3	SO4	I4	56.103	8.088	26.523	1.00	59.04	ION
	ATOM	3426	O4	SO4	I4	54.102	7.556	25.187	1.00	62.98	ION
	ATOM	3427	OH2	H2O	W1	13.271	14.509	-2.068	1.00	28.42	WAT
	ATOM	3430	OH2	H2O	W2	24.478	24.019	1.631	1.00	18.21	WAT
	ATOM	3433	OH2	H2O	W3	39.243	11.392	2.652	1.00	61.90	WAT
	ATOM	3436	OH2	H2O	W4	34.289	6.562	6.392	1.00	42.22	WAT
15	ATOM	3439	OH2	H2O	W5	35.138	17.649	7.396	1.00	10.61	WAT
	ATOM	3442	OH2	H2O	W6	45.459	18.755	7.767	1.00	7.34	WAT
	ATOM	3445	OH2	H2O	W7	42.345	30.678	7.619	1.00	28.73	WAT
	ATOM	3448	OH2	H2O	W8	32.688	6.497	9.058	1.00	10.44	WAT
	ATOM	3451	OH2	H2O	W9	43.689	20.504	8.760	1.00	10.64	WAT
20	ATOM	3454	OH2	H2O	W10	30.910	30.801	8.341	1.00	13.11	WAT
	ATOM	3457	OH2	H2O	W11	29.693	21.263	8.921	1.00	16.45	WAT
	ATOM	3460	OH2	H2O	W12	42.826	28.129	9.277	1.00	22.59	WAT
	ATOM	3463	OH2	H2O	W13	30.682	2.232	9.406	1.00	43.58	WAT
	ATOM	3466	OH2	H2O	W14	33.988	25.237	10.043	1.00	7.60	WAT
25	ATOM	3469	OH2	H2O	W15	29.815	3.839	11.184	1.00	29.44	WAT
	ATOM	3472	OH2	H2O	W16	21.995	30.353	10.492	1.00	19.42	WAT
	ATOM	3475	OH2	H2O	W17	42.564	12.506	11.540	1.00	24.95	WAT
	ATOM	3478	OH2	H2O	W18	41.418	27.496	11.622	1.00	33.76	WAT
	ATOM	3481	OH2	H2O	W19	7.099	23.042	12.125	1.00	47.71	WAT
30	ATOM	3484	OH2	H2O	W20	11.133	1.865	13.396	1.00	28.99	WAT
	ATOM	3487	OH2	H2O	W21	51.162	5.358	12.624	1.00	21.14	WAT
	ATOM	3490	OH2	H2O	W22	31.921	19.168	13.668	1.00	23.69	WAT
	ATOM	3493	OH2	H2O	W23	52.435	30.465	14.811	1.00	49.82	WAT
	ATOM	3496	OH2	H2O	W24	61.487	13.239	15.374	1.00	30.87	WAT
35	ATOM	3499	OH2	H2O	W25	34.624	30.512	16.397	1.00	19.35	WAT
	ATOM	3502	OH2	H2O	W26	50.478	32.393	15.417	1.00	46.50	WAT
	ATOM	3505	OH2	H2O	W27	15.697	3.397	16.713	1.00	26.61	WAT
	ATOM	3508	OH2	H2O	W28	31.413	25.731	16.972	1.00	31.20	WAT
	ATOM	3511	OH2	H2O	W29	29.754	33.575	16.080	1.00	41.32	WAT
40	ATOM	3514	OH2	H2O	W31	20.644	10.042	17.188	1.00	10.75	WAT
	ATOM	3517	OH2	H2O	W32	22.171	17.268	17.405	1.00	17.22	WAT
	ATOM	3520	OH2	H2O	W33	12.463	12.726	18.417	1.00	28.76	WAT
	ATOM	3523	OH2	H2O	W34	36.122	29.655	18.647	1.00	25.55	WAT
	ATOM	3526	OH2	H2O	W35	28.840	33.008	18.518	1.00	60.88	WAT
45	ATOM	3529	OH2	H2O	W36	23.243	-6.842	19.705	1.00	40.69	WAT
	ATOM	3532	OH2	H2O	W37	44.210	5.814	20.154	1.00	10.91	WAT
	ATOM	3535	OH2	H2O	W38	43.187	8.954	20.345	1.00	12.90	WAT
	ATOM	3538	OH2	H2O	W39	18.661	16.192	20.046	1.00	13.83	WAT
	ATOM	3541	OH2	H2O	W40	31.320	24.670	20.474	1.00	31.45	WAT
50	ATOM	3544	OH2	H2O	W41	58.125	30.535	20.680	1.00	30.70	WAT
	ATOM	3547	OH2	H2O	W42	51.705	35.412	20.102	1.00	44.88	WAT
	ATOM	3550	OH2	H2O	W43	18.436	10.677	22.433	1.00	15.35	WAT
	ATOM	3553	OH2	H2O	W44	46.747	11.778	21.803	1.00	7.33	WAT
	ATOM	3556	OH2	H2O	W45	7.436	14.973	21.015	1.00	65.69	WAT
55	ATOM	3559	OH2	H2O	W46	36.506	20.221	22.200	1.00	7.98	WAT
	ATOM	3562	OH2	H2O	W47	57.417	34.303	21.729	1.00	41.84	WAT
	ATOM	3565	OH2	H2O	W48	24.042	-1.043	23.553	1.00	24.27	WAT
	ATOM	3568	OH2	H2O	W49	21.651	11.548	24.342	1.00	25.14	WAT
	ATOM	3571	OH2	H2O	W50	65.022	13.509	23.787	1.00	35.68	WAT
60	ATOM	3574	OH2	H2O	W51	46.954	40.757	24.859	1.00	64.59	WAT
	ATOM	3577	OH2	H2O	W52	45.890	20.452	25.611	1.00	8.83	WAT
	ATOM	3580	OH2	H2O	W53	20.518	3.905	27.620	1.00	23.97	WAT
	ATOM	3583	OH2	H2O	W54	21.999	-0.948	27.282	1.00	57.48	WAT
	ATOM	3586	OH2	H2O	W55	52.040	25.530	27.949	1.00	23.73	WAT
65	ATOM	3589	OH2	H2O	W56	29.405	9.789	28.205	1.00	9.49	WAT
	ATOM	3592	OH2	H2O	W57	34.238	19.125	28.873	1.00	10.74	WAT
	ATOM	3595	OH2	H2O	W58	54.804	26.429	28.604	1.00	60.54	WAT
	ATOM	3598	OH2	H2O	W59	17.451	18.768	29.581	1.00	27.99	WAT
	ATOM	3601	OH2	H2O	W60	48.779	29.170	29.609	1.00	46.71	WAT
70	ATOM	3604	OH2	H2O	W61	45.814	20.882	29.658	1.00	33.32	WAT
	ATOM	3607	OH2	H2O	W62	48.607	23.729	30.418	1.00	20.83	WAT
	ATOM	3610	OH2	H2O	W63	40.340	24.873	29.532	1.00	62.50	WAT
	ATOM	3613	OH2	H2O	W64	37.501	5.576	31.124	1.00	29.87	WAT
	ATOM	3616	OH2	H2O	W65	18.080	19.532	31.868	1.00	21.82	WAT

	ATOM	3619	OH2	H2O	W66	34.660	9.819	33.358	1.00	23.32	WAT
	ATOM	3622	OH2	H2O	W67	37.534	31.896	32.452	1.00	61.46	WAT
	ATOM	3625	OH2	H2O	W68	49.327	30.884	32.705	1.00	61.19	WAT
5	ATOM	3628	OH2	H2O	W69	35.287	4.395	33.853	1.00	65.46	WAT
	ATOM	3631	OH2	H2O	W70	46.540	15.470	36.559	1.00	37.98	WAT
	ATOM	3634	OH2	H2O	W71	20.459	15.092	-4.969	1.00	38.15	WAT
	ATOM	3637	OH2	H2O	W72	22.446	11.316	-5.887	1.00	43.50	WAT
	ATOM	3640	OH2	H2O	W73	13.526	13.411	-4.571	1.00	37.25	WAT
10	ATOM	3643	OH2	H2O	W74	7.696	15.276	-4.076	1.00	54.51	WAT
	ATOM	3646	OH2	H2O	W75	34.508	6.469	-2.881	1.00	56.62	WAT
	ATOM	3649	OH2	H2O	W76	35.586	9.080	-2.176	1.00	52.20	WAT
	ATOM	3652	OH2	H2O	W77	34.766	8.506	0.691	1.00	50.82	WAT
	ATOM	3655	OH2	H2O	W78	14.624	12.718	2.399	1.00	46.38	WAT
15	ATOM	3658	OH2	H2O	W79	8.957	27.834	3.253	1.00	61.27	WAT
	ATOM	3661	OH2	H2O	W80	35.381	10.960	3.923	1.00	42.16	WAT
	ATOM	3664	OH2	H2O	W81	12.616	12.764	4.576	1.00	36.01	WAT
	ATOM	3667	OH2	H2O	W82	51.182	7.941	5.481	1.00	63.05	WAT
	ATOM	3670	OH2	H2O	W83	18.918	-3.025	8.289	1.00	54.06	WAT
20	ATOM	3673	OH2	H2O	W84	28.380	31.912	7.847	1.00	42.35	WAT
	ATOM	3676	OH2	H2O	W85	21.044	-2.352	9.792	1.00	44.42	WAT
	ATOM	3679	OH2	H2O	W86	40.583	13.700	9.965	1.00	7.61	WAT
	ATOM	3682	OH2	H2O	W87	41.310	32.154	9.846	1.00	24.24	WAT
	ATOM	3685	OH2	H2O	W88	44.841	13.329	10.414	1.00	20.96	WAT
25	ATOM	3688	OH2	H2O	W89	42.051	4.998	15.235	1.00	29.00	WAT
	ATOM	3691	OH2	H2O	W90	30.534	23.755	18.261	1.00	33.03	WAT
	ATOM	3694	OH2	H2O	W91	23.197	19.336	18.678	1.00	12.79	WAT
	ATOM	3697	OH2	H2O	W92	20.416	30.441	20.893	1.00	56.74	WAT
	ATOM	3700	OH2	H2O	W93	18.108	-7.144	21.357	1.00	56.77	WAT
30	ATOM	3703	OH2	H2O	W94	37.521	22.993	22.173	1.00	11.09	WAT
	ATOM	3706	OH2	H2O	W95	16.565	10.714	24.585	1.00	22.21	WAT
	ATOM	3709	OH2	H2O	W96	40.558	22.707	27.935	1.00	24.30	WAT
	ATOM	3712	OH2	H2O	W97	58.973	22.744	28.169	1.00	49.47	WAT
	ATOM	3715	OH2	H2O	W98	56.646	24.543	29.017	1.00	48.40	WAT
	ATOM	3718	OH2	H2O	W99	20.568	5.213	29.951	1.00	14.74	WAT
35	ATOM	3721	OH2	H2O	W100	23.639	13.158	30.363	1.00	9.56	WAT
	ATOM	3724	OH2	H2O	W102	25.449	0.185	38.552	1.00	48.38	WAT
	ATOM	3727	OH2	H2O	W103	20.942	2.946	40.037	1.00	67.19	WAT
	ATOM	3730	OH2	H2O	W104	23.988	2.923	-6.202	1.00	42.70	WAT
40	ATOM	3733	OH2	H2O	W105	11.166	26.661	1.732	1.00	56.56	WAT
	ATOM	3736	OH2	H2O	W106	20.816	-0.275	6.272	1.00	51.85	WAT
	ATOM	3739	OH2	H2O	W107	15.958	-2.090	7.597	1.00	58.70	WAT
	ATOM	3742	OH2	H2O	W109	4.666	19.568	14.523	1.00	62.36	WAT
	ATOM	3745	OH2	H2O	W110	54.934	10.350	16.643	1.00	9.88	WAT
45	ATOM	3748	OH2	H2O	W111	20.268	14.083	19.965	1.00	23.19	WAT
	ATOM	3751	OH2	H2O	W112	23.367	-7.168	23.328	1.00	34.49	WAT
	ATOM	3754	OH2	H2O	W113	44.395	22.070	27.583	1.00	33.86	WAT
	ATOM	3757	OH2	H2O	W114	17.857	12.056	32.038	1.00	36.38	WAT
	ATOM	3760	OH2	H2O	W115	17.482	8.465	32.796	1.00	45.20	WAT
50	ATOM	3763	OH2	H2O	W116	16.470	13.285	34.200	1.00	61.75	WAT
	ATOM	3766	OH2	H2O	W117	30.942	27.600	35.534	1.00	59.28	WAT
	ATOM	3769	OH2	H2O	W118	23.663	13.911	36.921	1.00	28.73	WAT
	ATOM	3772	OH2	H2O	W119	32.027	24.588	38.216	1.00	56.83	WAT
	ATOM	3775	OH2	H2O	W120	45.195	19.704	39.020	1.00	59.83	WAT
55	ATOM	3778	OH2	H2O	W121	12.092	24.048	-11.160	1.00	62.44	WAT
	ATOM	3781	OH2	H2O	W122	21.963	17.590	-7.942	1.00	54.45	WAT
	ATOM	3784	OH2	H2O	W123	7.453	27.892	-8.490	1.00	64.31	WAT
	ATOM	3787	OH2	H2O	W124	17.015	6.562	-6.488	1.00	56.82	WAT
	ATOM	3790	OH2	H2O	W125	12.215	15.144	-6.047	1.00	64.02	WAT
60	ATOM	3793	OH2	H2O	W126	26.639	3.939	-6.437	1.00	34.33	WAT
	ATOM	3796	OH2	H2O	W127	26.463	3.624	-3.277	1.00	62.30	WAT
	ATOM	3799	OH2	H2O	W128	22.317	2.826	-1.505	1.00	42.21	WAT
	ATOM	3802	OH2	H2O	W129	30.865	23.577	-2.119	1.00	59.09	WAT
	ATOM	3805	OH2	H2O	W130	24.333	1.683	-0.321	1.00	61.17	WAT
65	ATOM	3808	OH2	H2O	W131	30.146	21.627	-0.837	1.00	19.80	WAT
	ATOM	3811	OH2	H2O	W132	11.067	13.898	-0.283	1.00	62.74	WAT
	ATOM	3814	OH2	H2O	W133	26.618	0.366	1.617	1.00	29.43	WAT
	ATOM	3817	OH2	H2O	W134	13.885	8.735	1.946	1.00	51.92	WAT
	ATOM	3820	OH2	H2O	W135	33.070	9.858	2.577	1.00	23.84	WAT
70	ATOM	3823	OH2	H2O	W136	45.045	13.994	0.687	1.00	44.83	WAT
	ATOM	3826	OH2	H2O	W137	15.586	6.794	3.708	1.00	20.72	WAT
	ATOM	3829	OH2	H2O	W138	44.329	12.094	3.605	1.00	38.79	WAT
	ATOM	3832	OH2	H2O	W139	14.809	-0.981	4.516	1.00	58.38	WAT
	ATOM	3835	OH2	H2O	W140	37.078	7.969	4.374	1.00	63.50	WAT
	ATOM	3838	OH2	H2O	W141	54.040	24.557	3.634	1.00	62.02	WAT

	ATOM	3841	OH2	H2O	W142	52.335	10.802	5.186	1.00	37.62	WAT
	ATOM	3844	OH2	H2O	W143	55.458	23.137	6.248	1.00	32.67	WAT
	ATOM	3847	OH2	H2O	W144	36.552	19.720	6.752	1.00	15.43	WAT
5	ATOM	3850	OH2	H2O	W145	62.801	12.451	7.956	1.00	57.14	WAT
	ATOM	3853	OH2	H2O	W146	46.761	32.056	7.406	1.00	63.32	WAT
	ATOM	3856	OH2	H2O	W147	64.065	15.296	7.803	1.00	47.39	WAT
	ATOM	3859	OH2	H2O	W148	47.597	33.665	9.348	1.00	39.56	WAT
	ATOM	3862	OH2	H2O	W149	51.126	7.271	10.571	1.00	60.37	WAT
10	ATOM	3865	OH2	H2O	W150	47.677	9.094	9.991	1.00	54.13	WAT
	ATOM	3868	OH2	H2O	W151	45.286	10.578	10.690	1.00	41.78	WAT
	ATOM	3871	OH2	H2O	W152	15.419	-6.470	10.878	1.00	48.96	WAT
	ATOM	3874	OH2	H2O	W153	47.232	6.217	9.705	1.00	61.31	WAT
	ATOM	3877	OH2	H2O	W154	9.370	14.880	11.809	1.00	58.86	WAT
15	ATOM	3880	OH2	H2O	W155	11.053	16.375	10.749	1.00	22.68	WAT
	ATOM	3883	OH2	H2O	W156	13.004	-6.447	11.923	1.00	57.29	WAT
	ATOM	3886	OH2	H2O	W157	42.064	10.046	11.682	1.00	32.09	WAT
	ATOM	3889	OH2	H2O	W158	5.260	25.623	12.277	1.00	64.00	WAT
	ATOM	3892	OH2	H2O	W159	43.419	7.985	12.440	1.00	36.84	WAT
20	ATOM	3895	OH2	H2O	W160	46.115	33.502	14.396	1.00	38.29	WAT
	ATOM	3898	OH2	H2O	W161	19.542	39.899	13.029	1.00	64.76	WAT
	ATOM	3901	OH2	H2O	W162	43.012	9.653	15.045	1.00	17.15	WAT
	ATOM	3904	OH2	H2O	W163	32.815	21.441	14.870	1.00	39.11	WAT
	ATOM	3907	OH2	H2O	W164	10.508	26.805	15.792	1.00	29.67	WAT
25	ATOM	3910	OH2	H2O	W165	13.943	11.168	16.188	1.00	36.60	WAT
	ATOM	3913	OH2	H2O	W166	57.614	31.128	16.287	1.00	56.66	WAT
	ATOM	3916	OH2	H2O	W167	50.219	34.334	17.596	1.00	63.05	WAT
	ATOM	3919	OH2	H2O	W168	13.547	8.261	17.874	1.00	36.32	WAT
	ATOM	3922	OH2	H2O	W169	62.736	11.493	17.890	1.00	62.41	WAT
30	ATOM	3925	OH2	H2O	W170	15.701	20.334	18.557	1.00	13.43	WAT
	ATOM	3928	OH2	H2O	W171	10.827	30.180	16.730	1.00	64.94	WAT
	ATOM	3931	OH2	H2O	W172	43.422	34.001	18.705	1.00	55.39	WAT
	ATOM	3934	OH2	H2O	W173	13.437	5.381	19.987	1.00	34.89	WAT
	ATOM	3937	OH2	H2O	W174	9.462	27.032	19.875	1.00	49.74	WAT
35	ATOM	3940	OH2	H2O	W175	23.338	28.931	18.933	1.00	41.23	WAT
	ATOM	3943	OH2	H2O	W176	12.574	30.132	19.382	1.00	60.48	WAT
	ATOM	3946	OH2	H2O	W177	49.237	37.476	19.793	1.00	62.54	WAT
	ATOM	3949	OH2	H2O	W178	20.654	4.522	20.441	1.00	10.53	WAT
	ATOM	3952	OH2	H2O	W179	11.764	13.279	21.611	1.00	50.21	WAT
40	ATOM	3955	OH2	H2O	W180	15.220	-6.254	20.032	1.00	57.20	WAT
	ATOM	3958	OH2	H2O	W181	22.639	26.237	21.136	1.00	44.80	WAT
	ATOM	3961	OH2	H2O	W182	21.022	12.381	21.904	1.00	29.14	WAT
	ATOM	3964	OH2	H2O	W183	21.330	-7.790	21.612	1.00	61.63	WAT
	ATOM	3967	OH2	H2O	W184	5.854	18.174	25.647	1.00	53.85	WAT
45	ATOM	3970	OH2	H2O	W185	43.431	26.371	22.351	1.00	12.05	WAT
	ATOM	3973	OH2	H2O	W186	21.092	27.992	22.725	1.00	43.78	WAT
	ATOM	3976	OH2	H2O	W187	45.166	39.515	23.097	1.00	43.22	WAT
	ATOM	3979	OH2	H2O	W188	43.788	-5.542	22.917	1.00	20.49	WAT
	ATOM	3982	OH2	H2O	W189	19.857	-1.257	24.615	1.00	41.12	WAT
50	ATOM	3985	OH2	H2O	W190	33.147	29.499	25.022	1.00	51.64	WAT
	ATOM	3988	OH2	H2O	W191	18.138	24.928	24.589	1.00	13.27	WAT
	ATOM	3991	OH2	H2O	W192	64.980	19.136	25.088	1.00	45.67	WAT
	ATOM	3994	OH2	H2O	W193	21.953	26.958	24.831	1.00	29.13	WAT
	ATOM	3997	OH2	H2O	W194	36.245	31.046	26.313	1.00	50.47	WAT
55	ATOM	4000	OH2	H2O	W195	37.136	28.714	27.873	1.00	36.81	WAT
	ATOM	4003	OH2	H2O	W196	26.399	27.840	28.877	1.00	20.07	WAT
	ATOM	4006	OH2	H2O	W197	26.937	3.124	30.898	1.00	22.19	WAT
	ATOM	4009	OH2	H2O	W198	40.716	28.552	31.397	1.00	66.91	WAT
	ATOM	4012	OH2	H2O	W199	35.210	20.212	32.719	1.00	34.78	WAT
60	ATOM	4015	OH2	H2O	W200	44.614	29.728	31.712	1.00	35.73	WAT
	ATOM	4018	OH2	H2O	W201	46.971	28.999	32.934	1.00	63.79	WAT
	ATOM	4021	OH2	H2O	W202	17.870	15.511	33.528	1.00	56.73	WAT
	ATOM	4024	OH2	H2O	W203	32.280	21.154	33.553	1.00	31.52	WAT
	ATOM	4027	OH2	H2O	W204	32.341	4.687	35.863	1.00	32.13	WAT
65	ATOM	4030	OH2	H2O	W205	57.825	9.610	33.754	1.00	57.15	WAT
	ATOM	4033	OH2	H2O	W206	17.611	1.888	35.124	1.00	48.07	WAT
	ATOM	4036	OH2	H2O	W207	23.506	2.795	34.891	1.00	28.65	WAT
	ATOM	4039	OH2	H2O	W208	20.897	3.545	36.176	1.00	52.87	WAT
	ATOM	4042	OH2	H2O	W209	59.032	12.040	36.002	1.00	48.20	WAT
70	ATOM	4045	OH2	H2O	W210	18.610	15.592	36.374	1.00	41.92	WAT
	ATOM	4048	OH2	H2O	W211	37.354	18.016	37.024	1.00	58.91	WAT
	ATOM	4051	OH2	H2O	W212	32.869	20.042	36.066	1.00	43.76	WAT
	ATOM	4054	OH2	H2O	W213	20.262	7.455	37.104	1.00	22.80	WAT
	ATOM	4057	OH2	H2O	W214	34.362	18.295	37.670	1.00	65.56	WAT
	ATOM	4060	OH2	H2O	W215	45.553	17.103	38.479	1.00	44.01	WAT

268

	ATOM	4063	OH2	H2O	W216	33.213	21.401	38.873	1.00	46.10	WAT
	ATOM	4066	OH2	H2O	W217	26.341	3.966	42.161	1.00	41.41	WAT
	ATOM	4069	OH2	H2O	W218	24.185	5.557	43.251	1.00	61.37	WAT
5	ATOM	4072	OH2	H2O	W219	29.470	20.646	43.998	1.00	63.63	WAT
	ATOM	4075	OH2	H2O	W220	15.453	11.831	-10.015	1.00	47.72	WAT
	ATOM	4078	OH2	H2O	W221	13.784	13.105	-7.687	1.00	59.94	WAT
	ATOM	4081	OH2	H2O	W222	24.828	5.235	-7.839	1.00	55.09	WAT
	ATOM	4084	OH2	H2O	W223	22.475	4.803	-8.726	1.00	33.32	WAT
10	ATOM	4087	OH2	H2O	W224	4.975	19.010	-7.536	1.00	60.61	WAT
	ATOM	4090	OH2	H2O	W225	19.157	17.835	-7.471	1.00	60.79	WAT
	ATOM	4093	OH2	H2O	W226	4.004	21.375	-7.415	1.00	54.93	WAT
	ATOM	4096	OH2	H2O	W227	12.778	28.813	-3.533	1.00	62.24	WAT
	ATOM	4099	OH2	H2O	W228	11.950	25.323	-1.676	1.00	59.97	WAT
15	ATOM	4102	OH2	H2O	W229	12.918	27.632	-0.080	1.00	50.50	WAT
	ATOM	4105	OH2	H2O	W230	10.111	18.828	0.322	1.00	42.89	WAT
	ATOM	4108	OH2	H2O	W231	9.204	22.710	1.803	1.00	51.30	WAT
	ATOM	4111	OH2	H2O	W232	15.745	6.057	0.767	1.00	64.00	WAT
	ATOM	4114	OH2	H2O	W233	32.646	29.113	1.585	1.00	60.52	WAT
20	ATOM	4117	OH2	H2O	W234	38.704	8.531	2.022	1.00	61.44	WAT
	ATOM	4120	OH2	H2O	W235	48.050	11.980	2.728	1.00	55.55	WAT
	ATOM	4123	OH2	H2O	W236	25.790	31.286	3.508	1.00	49.16	WAT
	ATOM	4126	OH2	H2O	W237	42.254	10.642	4.188	1.00	61.97	WAT
	ATOM	4129	OH2	H2O	W238	7.410	25.494	4.336	1.00	46.83	WAT
25	ATOM	4132	OH2	H2O	W239	23.337	1.008	5.154	1.00	60.48	WAT
	ATOM	4135	OH2	H2O	W240	56.942	6.558	6.120	1.00	52.50	WAT
	ATOM	4138	OH2	H2O	W241	43.778	11.076	6.988	1.00	41.51	WAT
	ATOM	4141	OH2	H2O	W242	44.647	13.616	7.689	1.00	19.04	WAT
	ATOM	4144	OH2	H2O	W243	31.128	33.258	7.876	1.00	31.09	WAT
30	ATOM	4147	OH2	H2O	W244	10.740	-6.355	8.437	1.00	59.04	WAT
	ATOM	4150	OH2	H2O	W245	35.051	3.084	10.386	1.00	37.07	WAT
	ATOM	4153	OH2	H2O	W246	53.832	6.440	10.762	1.00	43.97	WAT
	ATOM	4156	OH2	H2O	W247	22.078	38.549	11.049	1.00	48.36	WAT
	ATOM	4159	OH2	H2O	W248	40.909	30.722	12.219	1.00	35.55	WAT
35	ATOM	4162	OH2	H2O	W249	54.244	30.821	12.186	1.00	61.49	WAT
	ATOM	4165	OH2	H2O	W250	11.557	-0.937	13.551	1.00	65.58	WAT
	ATOM	4168	OH2	H2O	W251	40.949	7.528	13.780	1.00	21.50	WAT
	ATOM	4171	OH2	H2O	W252	8.780	0.357	14.386	1.00	61.48	WAT
	ATOM	4174	OH2	H2O	W253	6.834	21.255	15.306	1.00	47.46	WAT
40	ATOM	4177	OH2	H2O	W255	8.005	36.259	13.252	1.00	62.37	WAT
	ATOM	4180	OH2	H2O	W257	15.116	37.833	17.134	1.00	55.80	WAT
	ATOM	4183	OH2	H2O	W258	11.183	14.418	16.573	1.00	28.29	WAT
	ATOM	4186	OH2	H2O	W259	31.715	31.237	17.198	1.00	31.71	WAT
	ATOM	4189	OH2	H2O	W260	59.530	35.189	18.195	1.00	61.28	WAT
45	ATOM	4192	OH2	H2O	W261	17.062	-7.896	18.622	1.00	60.35	WAT
	ATOM	4195	OH2	H2O	W262	32.419	-0.149	23.110	1.00	10.14	WAT
	ATOM	4198	OH2	H2O	W263	29.168	27.583	21.474	1.00	56.42	WAT
	ATOM	4201	OH2	H2O	W264	42.765	37.188	19.722	1.00	59.78	WAT
	ATOM	4204	OH2	H2O	W265	44.493	39.540	20.593	1.00	55.49	WAT
50	ATOM	4207	OH2	H2O	W266	15.482	-3.737	23.828	1.00	65.61	WAT
	ATOM	4210	OH2	H2O	W267	20.930	-5.605	23.540	1.00	46.63	WAT
	ATOM	4213	OH2	H2O	W268	14.934	8.137	24.714	1.00	39.99	WAT
	ATOM	4216	OH2	H2O	W269	11.316	7.795	23.110	1.00	60.78	WAT
	ATOM	4219	OH2	H2O	W270	24.342	28.269	24.711	1.00	57.89	WAT
55	ATOM	4222	OH2	H2O	W271	16.164	4.696	26.087	1.00	59.78	WAT
	ATOM	4225	OH2	H2O	W272	53.571	2.359	23.549	1.00	8.11	WAT
	ATOM	4228	OH2	H2O	W273	54.306	37.230	26.253	1.00	62.00	WAT
	ATOM	4231	OH2	H2O	W274	24.571	29.474	27.332	1.00	47.96	WAT
	ATOM	4234	OH2	H2O	W275	41.983	20.815	29.642	1.00	62.13	WAT
60	ATOM	4237	OH2	H2O	W276	43.560	24.661	30.932	1.00	54.82	WAT
	ATOM	4240	OH2	H2O	W277	16.883	2.173	30.567	1.00	61.85	WAT
	ATOM	4243	OH2	H2O	W278	25.523	26.763	32.224	1.00	37.75	WAT
	ATOM	4246	OH2	H2O	W279	28.260	27.894	32.431	1.00	57.26	WAT
	ATOM	4249	OH2	H2O	W280	25.906	29.467	32.257	1.00	55.09	WAT
65	ATOM	4252	OH2	H2O	W281	33.410	-0.042	33.609	1.00	60.42	WAT
	ATOM	4255	OH2	H2O	W282	37.275	18.945	33.529	1.00	60.70	WAT
	ATOM	4258	OH2	H2O	W283	27.098	-1.948	33.696	1.00	65.22	WAT
	ATOM	4261	OH2	H2O	W284	15.442	4.574	34.322	1.00	45.39	WAT
	ATOM	4264	OH2	H2O	W285	39.205	21.131	34.037	1.00	64.81	WAT
70	ATOM	4267	OH2	H2O	W286	24.933	0.631	35.869	1.00	60.97	WAT
	ATOM	4270	OH2	H2O	W287	20.291	0.794	35.989	1.00	61.78	WAT
	ATOM	4273	OH2	H2O	W288	36.816	5.148	36.580	1.00	67.04	WAT
	ATOM	4276	OH2	H2O	W289	18.198	21.314	34.134	1.00	29.00	WAT
	ATOM	4279	OH2	H2O	W290	36.086	2.554	38.303	1.00	40.97	WAT
	ATOM	4282	OH2	H2O	W291	24.493	9.928	38.518	1.00	54.89	WAT

	ATOM	4285	OH2	H2O	W292	19.616	-0.627	38.168	1.00	43.85	WAT
	ATOM	4288	OH2	H2O	W293	26.905	15.120	38.741	1.00	40.92	WAT
	ATOM	4291	OH2	H2O	W294	34.870	16.321	39.700	1.00	53.58	WAT
	ATOM	4294	OH2	H2O	W295	43.644	21.895	40.236	1.00	37.07	WAT
5	ATOM	4297	OH2	H2O	W296	33.206	-0.716	30.008	1.00	12.94	WAT
	ATOM	4300	OH2	H2O	W297	33.633	31.192	21.854	1.00	61.73	WAT
	ATOM	4303	OH2	H2O	W298	12.977	16.734	-8.360	1.00	53.51	WAT
	ATOM	4306	OH2	H2O	W299	30.448	1.646	-2.702	1.00	60.38	WAT
	ATOM	4309	OH2	H2O	W300	18.602	0.987	-0.295	1.00	55.68	WAT
10	ATOM	4312	OH2	H2O	W301	30.912	3.064	0.799	1.00	63.42	WAT
	ATOM	4315	OH2	H2O	W302	17.275	0.470	2.033	1.00	62.63	WAT
	ATOM	4318	OH2	H2O	W303	29.014	0.343	3.334	1.00	56.71	WAT
	ATOM	4321	OH2	H2O	W304	8.814	7.069	2.341	1.00	67.54	WAT
	ATOM	4324	OH2	H2O	W305	7.354	4.905	4.101	1.00	58.10	WAT
15	ATOM	4327	OH2	H2O	W306	51.797	26.905	3.214	1.00	35.95	WAT
	ATOM	4330	OH2	H2O	W307	12.958	31.106	3.089	1.00	61.96	WAT
	ATOM	4333	OH2	H2O	W308	15.018	30.561	5.513	1.00	38.26	WAT
	ATOM	4336	OH2	H2O	W309	34.375	1.537	5.225	1.00	61.55	WAT
	ATOM	4339	OH2	H2O	W310	34.858	4.151	7.710	1.00	43.47	WAT
20	ATOM	4342	OH2	H2O	W311	31.542	-0.141	6.959	1.00	44.82	WAT
	ATOM	4345	OH2	H2O	W312	11.847	16.158	6.975	1.00	27.46	WAT
	ATOM	4348	OH2	H2O	W313	12.244	17.842	8.794	1.00	41.87	WAT
	ATOM	4351	OH2	H2O	W314	31.834	-0.093	9.955	1.00	59.74	WAT
	ATOM	4354	OH2	H2O	W315	13.977	31.633	9.218	1.00	50.22	WAT
25	ATOM	4357	OH2	H2O	W316	52.949	32.079	9.885	1.00	54.43	WAT
	ATOM	4360	OH2	H2O	W317	41.174	7.397	9.195	1.00	61.85	WAT
	ATOM	4363	OH2	H2O	W318	8.918	34.832	11.072	1.00	63.74	WAT
	ATOM	4366	OH2	H2O	W320	24.222	39.316	12.541	1.00	64.51	WAT
	ATOM	4369	OH2	H2O	W321	22.515	37.378	13.316	1.00	39.99	WAT
30	ATOM	4372	OH2	H2O	W322	66.079	17.994	14.179	1.00	62.92	WAT
	ATOM	4375	OH2	H2O	W323	25.392	35.303	14.612	1.00	60.93	WAT
	ATOM	4378	OH2	H2O	W324	23.014	34.609	17.119	1.00	59.34	WAT
	ATOM	4381	OH2	H2O	W325	13.296	0.364	18.510	1.00	57.91	WAT
	ATOM	4384	OH2	H2O	W326	22.621	31.460	19.050	1.00	57.02	WAT
35	ATOM	4387	OH2	H2O	W327	31.434	33.825	19.528	1.00	56.39	WAT
	ATOM	4390	OH2	H2O	W328	13.448	1.933	21.003	1.00	47.89	WAT
	ATOM	4393	OH2	H2O	W329	31.308	4.896	20.864	1.00	60.43	WAT
	ATOM	4396	OH2	H2O	W330	26.435	25.790	21.794	1.00	49.26	WAT
	ATOM	4399	OH2	H2O	W331	11.715	4.671	22.358	1.00	62.44	WAT
40	ATOM	4402	OH2	H2O	W332	38.805	34.893	21.467	1.00	60.22	WAT
	ATOM	4405	OH2	H2O	W333	55.064	37.587	23.686	1.00	46.43	WAT
	ATOM	4408	OH2	H2O	W334	57.777	22.832	25.416	1.00	21.60	WAT
	ATOM	4411	OH2	H2O	W335	28.195	28.919	26.231	1.00	62.18	WAT
	ATOM	4414	OH2	H2O	W336	57.005	39.214	27.039	1.00	61.16	WAT
45	ATOM	4417	OH2	H2O	W337	55.369	38.045	28.865	1.00	57.73	WAT
	ATOM	4420	OH2	H2O	W338	13.518	0.858	31.858	1.00	59.56	WAT
	ATOM	4423	OH2	H2O	W339	52.037	13.168	34.795	1.00	50.84	WAT
	ATOM	4426	OH2	H2O	W340	39.350	24.615	34.997	1.00	58.36	WAT
	ATOM	4429	OH2	H2O	W341	53.616	7.873	36.004	1.00	63.43	WAT
50	ATOM	4432	OH2	H2O	W342	45.316	28.152	36.058	1.00	59.41	WAT
	ATOM	4435	OH2	H2O	W343	25.762	12.412	38.303	1.00	42.37	WAT
	ATOM	4438	OH2	H2O	W344	21.080	-3.021	38.567	1.00	59.91	WAT
	ATOM	4441	OH2	H2O	W345	24.133	17.901	39.669	1.00	61.25	WAT
	ATOM	4444	OH2	H2O	W346	28.981	4.683	46.102	1.00	58.16	WAT
55	ATOM	4447	OH2	H2O	W347	62.736	10.848	22.153	1.00	37.03	WAT
	ATOM	4450	OH2	H2O	W348	25.543	4.477	-10.331	1.00	42.37	WAT
	ATOM	4453	OH2	H2O	W349	17.146	19.953	-8.017	1.00	61.63	WAT
	ATOM	4456	OH2	H2O	W350	8.272	14.824	-6.982	1.00	60.56	WAT
	ATOM	4459	OH2	H2O	W351	32.230	5.355	1.727	1.00	40.78	WAT
60	ATOM	4462	OH2	H2O	W352	48.686	26.690	2.994	1.00	63.48	WAT
	ATOM	4465	OH2	H2O	W353	58.103	28.104	8.882	1.00	62.75	WAT
	ATOM	4468	OH2	H2O	W354	34.958	33.049	8.243	1.00	25.86	WAT
	ATOM	4471	OH2	H2O	W355	10.016	29.592	9.093	1.00	42.25	WAT
	ATOM	4474	OH2	H2O	W356	57.140	3.534	9.816	1.00	48.53	WAT
65	ATOM	4477	OH2	H2O	W357	7.562	18.861	9.912	1.00	58.30	WAT
	ATOM	4480	OH2	H2O	W358	60.359	25.423	9.324	1.00	58.40	WAT
	ATOM	4483	OH2	H2O	W359	45.152	6.461	11.617	1.00	40.33	WAT
	ATOM	4486	OH2	H2O	W360	62.783	24.668	10.930	1.00	59.26	WAT
	ATOM	4489	OH2	H2O	W361	48.178	34.042	12.672	1.00	63.59	WAT
70	ATOM	4492	OH2	H2O	W362	45.107	5.108	13.927	1.00	64.84	WAT
	ATOM	4495	OH2	H2O	W363	33.178	24.135	14.468	1.00	51.38	WAT
	ATOM	4498	OH2	H2O	W364	7.763	24.735	15.913	1.00	47.27	WAT
	ATOM	4501	OH2	H2O	W365	5.613	33.845	18.217	1.00	64.74	WAT
	ATOM	4504	OH2	H2O	W366	58.884	22.526	22.980	1.00	17.81	WAT

270

	ATOM	4507	OH2	H2O	W367	16.998	10.395	27.515	1.00	52.89	WAT
	ATOM	4510	OH2	H2O	W368	16.908	7.981	28.819	1.00	49.62	WAT
	ATOM	4513	OH2	H2O	W369	15.157	-0.981	28.864	1.00	61.45	WAT
5	ATOM	4516	OH2	H2O	W370	15.045	-0.987	25.531	1.00	53.98	WAT
	ATOM	4519	OH2	H2O	W371	32.303	28.437	33.045	1.00	55.23	WAT
	ATOM	4522	OH2	H2O	W372	22.993	0.654	40.086	1.00	62.78	WAT
	ATOM	4525	OH2	H2O	W373	9.442	17.104	-10.377	1.00	59.26	WAT
	ATOM	4528	OH2	H2O	W374	22.485	33.589	-2.520	1.00	65.93	WAT
10	ATOM	4531	OH2	H2O	W375	19.550	35.138	-1.420	1.00	59.50	WAT
	ATOM	4534	OH2	H2O	W376	48.476	25.655	-0.837	1.00	59.42	WAT
	ATOM	4537	OH2	H2O	W377	47.802	12.980	-0.197	1.00	42.70	WAT
	ATOM	4540	OH2	H2O	W378	48.919	17.049	0.249	1.00	5.13	WAT
	ATOM	4543	OH2	H2O	W380	40.451	15.789	0.668	1.00	16.07	WAT
15	ATOM	4546	OH2	H2O	W381	21.655	35.119	0.592	1.00	66.16	WAT
	ATOM	4549	OH2	H2O	W382	8.809	1.322	1.314	1.00	58.48	WAT
	ATOM	4552	OH2	H2O	W383	44.523	34.663	1.339	1.00	43.99	WAT
	ATOM	4555	OH2	H2O	W384	33.379	2.840	2.365	1.00	63.26	WAT
	ATOM	4558	OH2	H2O	W386	34.393	6.164	2.996	1.00	63.71	WAT
20	ATOM	4561	OH2	H2O	W387	49.427	15.867	2.512	1.00	10.23	WAT
	ATOM	4564	OH2	H2O	W388	7.466	21.218	3.362	1.00	53.41	WAT
	ATOM	4567	OH2	H2O	W389	50.545	11.867	3.790	1.00	30.31	WAT
	ATOM	4570	OH2	H2O	W390	11.637	16.208	4.179	1.00	58.75	WAT
	ATOM	4573	OH2	H2O	W391	21.992	-4.343	5.335	1.00	32.58	WAT
25	ATOM	4576	OH2	H2O	W392	11.141	-2.488	4.814	1.00	61.48	WAT
	ATOM	4579	OH2	H2O	W393	63.406	16.311	5.136	1.00	24.19	WAT
	ATOM	4582	OH2	H2O	W394	36.550	24.652	4.647	1.00	34.10	WAT
	ATOM	4585	OH2	H2O	W395	60.451	12.253	5.043	1.00	37.53	WAT
	ATOM	4588	OH2	H2O	W396	61.888	21.410	5.982	1.00	30.52	WAT
	ATOM	4591	OH2	H2O	W397	59.050	21.338	6.863	1.00	49.70	WAT
30	ATOM	4594	OH2	H2O	W398	25.567	-0.327	7.330	1.00	56.93	WAT
	ATOM	4597	OH2	H2O	W399	9.550	-3.478	8.598	1.00	62.78	WAT
	ATOM	4600	OH2	H2O	W400	66.188	11.899	8.091	1.00	49.56	WAT
	ATOM	4603	OH2	H2O	W401	6.992	21.205	7.904	1.00	42.52	WAT
	ATOM	4606	OH2	H2O	W402	45.155	33.924	8.559	1.00	57.91	WAT
35	ATOM	4609	OH2	H2O	W403	29.300	36.079	8.923	1.00	60.20	WAT
	ATOM	4612	OH2	H2O	W404	17.861	-7.872	9.297	1.00	43.97	WAT
	ATOM	4615	OH2	H2O	W405	27.574	1.185	8.998	1.00	57.78	WAT
	ATOM	4618	OH2	H2O	W406	42.075	9.816	8.401	1.00	43.04	WAT
	ATOM	4621	OH2	H2O	W407	10.251	11.015	8.491	1.00	59.78	WAT
40	ATOM	4624	OH2	H2O	W408	61.182	29.971	9.819	1.00	60.15	WAT
	ATOM	4627	OH2	H2O	W409	19.346	37.039	10.383	1.00	30.63	WAT
	ATOM	4630	OH2	H2O	W410	54.765	3.554	11.258	1.00	48.00	WAT
	ATOM	4633	OH2	H2O	W411	54.256	1.039	11.971	1.00	58.39	WAT
45	ATOM	4636	OH2	H2O	W413	33.638	37.148	11.994	1.00	49.81	WAT
	ATOM	4639	OH2	H2O	W414	12.342	-3.943	12.799	1.00	61.42	WAT
	ATOM	4642	OH2	H2O	W415	49.408	0.590	13.050	1.00	41.13	WAT
	ATOM	4645	OH2	H2O	W416	28.779	36.551	12.174	1.00	53.03	WAT
	ATOM	4648	OH2	H2O	W417	46.671	-0.049	14.264	1.00	60.65	WAT
50	ATOM	4651	OH2	H2O	W418	69.130	7.771	13.599	1.00	52.92	WAT
	ATOM	4654	OH2	H2O	W419	11.197	39.582	14.280	1.00	63.38	WAT
	ATOM	4657	OH2	H2O	W420	64.803	20.349	13.298	1.00	47.73	WAT
	ATOM	4660	OH2	H2O	W421	55.081	0.930	15.323	1.00	17.28	WAT
	ATOM	4663	OH2	H2O	W422	65.078	22.166	15.053	1.00	37.59	WAT
55	ATOM	4666	OH2	H2O	W423	61.790	29.349	15.061	1.00	64.16	WAT
	ATOM	4669	OH2	H2O	W424	60.407	5.235	15.591	1.00	42.67	WAT
	ATOM	4672	OH2	H2O	W425	67.669	8.613	15.876	1.00	55.85	WAT
	ATOM	4675	OH2	H2O	W426	59.557	37.362	16.335	1.00	59.54	WAT
	ATOM	4678	OH2	H2O	W427	63.119	14.284	17.135	1.00	32.49	WAT
60	ATOM	4681	OH2	H2O	W428	43.178	2.630	16.889	1.00	17.97	WAT
	ATOM	4684	OH2	H2O	W429	57.681	9.923	16.799	1.00	26.63	WAT
	ATOM	4687	OH2	H2O	W430	8.126	13.632	17.221	1.00	62.93	WAT
	ATOM	4690	OH2	H2O	W431	65.631	20.719	17.175	1.00	50.39	WAT
	ATOM	4693	OH2	H2O	W432	32.632	35.010	17.081	1.00	59.36	WAT
65	ATOM	4696	OH2	H2O	W433	5.099	38.486	17.866	1.00	61.14	WAT
	ATOM	4699	OH2	H2O	W434	52.240	38.453	17.314	1.00	61.18	WAT
	ATOM	4702	OH2	H2O	W435	60.123	39.256	18.552	1.00	60.57	WAT
	ATOM	4705	OH2	H2O	W436	45.149	42.643	17.863	1.00	63.78	WAT
	ATOM	4708	OH2	H2O	W437	27.570	-9.487	18.383	1.00	34.04	WAT
70	ATOM	4711	OH2	H2O	W438	54.808	35.594	20.021	1.00	62.30	WAT
	ATOM	4714	OH2	H2O	W439	46.755	37.841	21.282	1.00	60.01	WAT
	ATOM	4717	OH2	H2O	W440	50.998	-0.047	21.406	1.00	56.91	WAT
	ATOM	4720	OH2	H2O	W441	12.982	4.815	24.998	1.00	63.75	WAT
	ATOM	4723	OH2	H2O	W442	42.641	4.344	25.960	1.00	35.72	WAT
	ATOM	4726	OH2	H2O	W443	54.465	31.791	26.677	1.00	46.97	WAT

	ATOM	4729	OH2	H2O	W444	37.685	34.631	26.252	1.00	61.71	WAT
	ATOM	4732	OH2	H2O	W445	19.410	-6.832	26.780	1.00	65.20	WAT
	ATOM	4735	OH2	H2O	W446	22.693	-4.892	26.606	1.00	68.35	WAT
5	ATOM	4738	OH2	H2O	W447	44.814	0.760	26.756	1.00	29.86	WAT
	ATOM	4741	OH2	H2O	W448	27.275	-6.308	27.610	1.00	57.47	WAT
	ATOM	4744	OH2	H2O	W449	46.440	2.970	29.423	1.00	26.70	WAT
	ATOM	4747	OH2	H2O	W450	35.797	0.293	30.309	1.00	52.36	WAT
	ATOM	4750	OH2	H2O	W451	51.661	23.593	30.089	1.00	54.52	WAT
10	ATOM	4753	OH2	H2O	W452	25.837	0.447	32.761	1.00	44.88	WAT
	ATOM	4756	OH2	H2O	W453	49.935	17.918	33.032	1.00	26.17	WAT
	ATOM	4759	OH2	H2O	W454	23.045	32.784	30.992	1.00	53.46	WAT
	ATOM	4762	OH2	H2O	W455	14.836	8.476	32.883	1.00	62.14	WAT
	ATOM	4765	OH2	H2O	W456	33.953	24.826	34.228	1.00	60.80	WAT
15	ATOM	4768	OH2	H2O	W457	26.991	26.111	34.768	1.00	59.95	WAT
	ATOM	4771	OH2	H2O	W458	33.866	28.694	35.216	1.00	62.32	WAT
	ATOM	4774	OH2	H2O	W459	13.980	7.166	35.030	1.00	46.92	WAT
	ATOM	4777	OH2	H2O	W460	43.037	14.806	36.655	1.00	60.78	WAT
	ATOM	4780	OH2	H2O	W461	20.016	21.261	36.573	1.00	53.72	WAT
20	ATOM	4783	OH2	H2O	W462	42.752	32.803	35.728	1.00	60.86	WAT
	ATOM	4786	OH2	H2O	W463	42.714	16.944	38.302	1.00	59.35	WAT
	ATOM	4789	OH2	H2O	W464	41.616	31.189	37.723	1.00	63.23	WAT
	ATOM	4792	OH2	H2O	W465	20.505	13.801	38.132	1.00	59.39	WAT
	ATOM	4795	OH2	H2O	W466	21.751	9.224	38.955	1.00	53.39	WAT
25	ATOM	4798	OH2	H2O	W467	21.542	15.702	40.093	1.00	61.41	WAT
	ATOM	4801	OH2	H2O	W468	43.007	19.408	40.772	1.00	60.22	WAT
	ATOM	4804	OH2	H2O	W469	24.356	15.437	41.210	1.00	64.10	WAT
	ATOM	4807	OH2	H2O	W470	20.739	8.938	42.465	1.00	58.15	WAT
	ATOM	4810	OH2	H2O	W471	25.774	-0.268	41.752	1.00	63.94	WAT
30	ATOM	4813	OH2	H2O	W472	31.291	16.314	44.783	1.00	60.75	WAT
	ATOM	4816	OH2	H2O	W473	26.029	4.408	48.598	1.00	63.99	WAT
	ATOM	4819	OH2	H2O	W272	33.621	-2.355	23.560	0.00	30.00	CLAS
	ATOM	4820	OH2	H2O	W411	32.834	-1.030	11.954	0.00	30.00	CLAS
	ATOM	4821	OH2	H2O	W418	18.013	-7.789	13.608	0.00	30.00	CLAS
35	ATOM	4822	OH2	H2O	W440	36.158	0.052	21.378	0.00	30.00	CLAS
	ATOM	4823	OH2	H2O	W448	59.877	6.322	27.608	0.00	30.00	CLAS
	ATOM	4824	OH2	H2O	W223	22.460	-4.780	8.719	0.00	30.00	CLAS
	ATOM	4825	OH2	H2O	W299	30.446	-1.662	2.731	0.00	30.00	CLAS
	ATOM	4826	OH2	H2O	W300	18.615	-0.986	0.283	0.00	30.00	CLAS
40	ATOM	4827	OH2	H2O	W303	29.033	-0.371	-3.335	0.00	30.00	CLAS
	ATOM	4828	OH2	H2O	W391	21.984	4.342	-5.320	0.00	30.00	CLAS
	ATOM	4829	OH2	H2O	W72	64.724	11.359	5.886	0.00	30.00	CLAS
	ATOM	4830	OH2	H2O	W129	56.284	23.561	2.119	0.00	30.00	CLAS
	ATOM	4831	OH2	H2O	W377	39.372	12.978	0.223	0.00	30.00	CLAS
45	ATOM	4832	OH2	H2O	W393	23.815	16.269	-5.092	0.00	30.00	CLAS
	ATOM	4833	OH2	H2O	W400	20.961	11.890	-8.117	0.00	30.00	CLAS
	ATOM	4834	OH2	H2O	W184	49.434	25.874	31.698	0.00	30.00	CLAS
	ATOM	4835	OH2	H2O	W191	61.718	19.091	32.764	0.00	30.00	CLAS
	ATOM	4836	OH2	H2O	W289	61.763	22.696	23.171	0.00	30.00	CLAS
50	ATOM	4837	OH2	H2O	W433	48.676	5.520	39.479	0.00	30.00	CLAS
	ATOM	4838	OH2	H2O	W455	58.418	35.529	24.441	0.00	30.00	CLAS
	ATOM	4839	OH2	H2O	W459	57.573	36.899	22.292	0.00	30.00	CLAS
	ATOM	4840	OH2	H2O	W192	21.431	24.877	32.218	0.00	30.00	CLAS
	ATOM	4841	OH2	H2O	W333	11.550	6.414	33.621	0.00	30.00	CLAS

Production of DPPI for crystallisation

The present invention provides, for the first time, a crystal of rat DPPI as well as the structure of the enzyme as determined therefrom. Further, for the first time is also
5 disclosed the structural co-ordinates for human DPPI. Therefore, when herein is discussed the use of rat DPPI co-ordinates it should be understood that the same use of the human co-ordinates are also within the scope of the invention. Accordingly, one aspect of the invention resides in the obtaining of enough DPPI protein of sufficient quality to obtain crystals of sufficient quality to determine the three dimensional structure of the
10 protein by X-ray diffraction methods. One embodiment of the present invention thus relates to obtaining a crystallisable composition comprising a substantially pure protein described by an amino acid sequence which is at least 37%, such as at least 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or 100% identical to the amino acid
15 sequence of rat DPPI protein as shown in SEQ.ID.NO.1 and to the composition itself.

The present invention further relates to an already crystallised molecule or molecular complex comprising a rat DPPI protein with the amino acid sequence as shown in SEQ.ID.NO.1 and/or a protein with at least 37% such as at least 75%, 76%, 77%, 78%,
20 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or 100% amino acid sequence identity to the amino acid sequence of rat DPPI protein as shown in SEQ.ID.NO.1.

Human and rat DPPI had previously been purified from natural sources like kidney, liver
25 or spleen, e.g. as described by (Doling *et al.* (1996) *FEBS Lett.* **392**, 277-280), but often in low amounts and often as preparations characterised by inhomogeneous, partially degraded (Cigic *et al.* (1998) *Biochim. Biophys. Acta* **1382**, 143-150) and impure protein limiting the possibility of growing crystals of sufficient quality.

30 The baculovirus/insect cell expression system used to obtain the crystallisable composition of the present invention, which was recently developed for the production of DPPI from a recombinant source (Lauritzen *et al.* (1998) *Protein Expr. Purif.* **14**, 434-442), offers the advantages of having strong or moderately strong promoters available for the high level expression of a heterologous protein. The baculovirus/insect cell system is also
35 able to resemble eukaryotic processing like glycosylation and proteolytic maturation.

Furthermore, the recombinant human and rat DPPIs obtained with the baculovirus/insect cell system are very similar to their natural counterparts with respect to glycosylation, enzymatic processing, oligomeric structure, CD spectroscopy and catalytic activity. In one embodiment of the present invention, recombinant protein was used that was produced in
5 this expression system rendering it possible to obtain crystals of sufficient quality to determine the three-dimensional structure of mature rat DPPI to high resolution.

Considering the high homology of the proteins in the DPPI family, one aspect of the invention relates to the use of the structure co-ordinates of the recombinant rat DPPI
10 crystals to solve the structure of crystallised homologue proteins, such as but not limited to dog, murine, monkey, rabbit, bovine, porcine, goat, horse, chicken or turkey DPPI. Homologues may be isolated from natural sources such as spleen, kidney, liver, lung or placenta by use of one or more of a variety of conventional chromatographic and fractionation principles such as hydrophobic interaction chromatography, anion-exchange
15 chromatography, cation exchange chromatography, high performance liquid chromatography (HPLC), affinity chromatography or precipitation, or the homologues proteins may be produced as recombinant proteins.

Another aspect of the invention is the use of the structure co-ordinates of mature rat DPPI
20 to solve the structure of crystals of co-complexes of wild type or mutant or modified forms of DPPI. DPPI can furthermore be isolated from a recombinant source. Crystals of co-complexes may be formed by crystallisation of e.g. DPPI from a natural or a recombinant source covalently or non-covalently associated with a chemical entity or compound, e.g. co-complexes with known DPPI inhibitors such as E-64 or Gly-Phe-CHN₂. The crystal
25 structures of such complexes may then be solved by molecular replacement, using some or all of the atomic co-ordinates disclosed in this invention, and compared with that of wild-type DPPI. Detailed analysis of the location and conformation of such known DPPI inhibitors, of their interactions with DPPI active site cleft residues and of the structural arrangement of said active site cleft residues upon binding of inhibitors will provide
30 information important for rational or semi-rational design of improved inhibitors.

Furthermore, structural analysis of DPPI-inhibitor co-complexes may reveal potential sites for modification within the active site of the enzyme, which can be changed to increase or decrease the enzyme's sensitivity to one or more protease inhibitors, preferably without affecting or reducing the catalytic activity of the enzyme.

The present invention furthermore relates to the use of the structural information for the design and production of mutants of DPPI, fusion proteins with DPPI, tagged forms of DPPI and new enzymes containing elements of DPPI, and the solving of their crystal structure. More particularly, by virtue of the present invention, e.g. the knowledge of the
5 location of the active site, chlorine binding site and interface between the different domains/subunits constituting DPPI permits the identification of desirable sites for mutation and identification of elements usable in design of new enzymes. For example, mutation may be directed to a particular site or combination of sites of wild-type DPPI, i.e., the active site, the chlorine binding site, the glycosylation sites or a location on the
10 interface sites between the domains/subunits may be chosen for mutagenesis. Similarly, a location on, at, or near the enzyme surface may be replaced, resulting in an altered surface charge, as compared to the wild-type enzyme. Alternatively, an amino acid residue in DPPI may be chosen for replacement based on its hydrophilic or hydrophobic characteristics.

15 The mutants or modified forms of DPPI prepared by this invention may be prepared in a number of ways. For example, the wild-type sequence of DPPI may be mutated in those sites identified using the present invention as desirable for mutation, by means of site directed mutagenesis by PCR or oligonucleotide-directed mutagenesis or other
20 conventional methods well known to the person skilled in the art. Synthetic oligonucleotides and PCR methods known in the art can be used to produce translational fusions between the 5' or 3' end of the entire DPPI coding sequence or fragments hereof and fusion partners like sequences encoding proteins or tags, e.g. polyhistidine tags. Alternatively, modified forms of DPPI may be generated by replacement of particular
25 amino acid(s) with unnaturally occurring amino acid(s) e.g. selenocysteine or selenomethionine or isotopically labelled amino acids. This may be achieved by growing a host organism capable of expressing either the wild type or mutant polypeptide on a growth medium depleted of the natural amino acids but enriched in the unnatural amino acids.

30 According to this invention, a mutated/altered DPPI DNA sequence produced by the methods described above, or any alternative methods known in the art, and also the above mentioned homologues DPPIs, originating from species other than human and rat, can be recombinantly expressed by molecular cloning into an expression vector and
35 introducing the vector into a host organism.

In an especially preferred embodiment of the invention, a host-vector system like the one used for production of protein for crystallisation is employed wherein the host is an insect cell such as cells derived from *Trichoplusia ni* or *Spodoptera frugiperda* and the vector is
5 a baculovirus vector such as vectors of the type of *Autographica californica* multiple nuclear polyhedrosis virus or *Bombyx mori* nuclear polyhedrosis virus. However, any of a wide variety of well-known available expression vectors and hosts is useful to express the mutated/modified/homologues DPPI coding sequences of this invention.

- 10 An expression vector, as is well known in the art, typically contains a suitable promoter and other appropriate regulatory elements required for transcription of cloned copies of genes and the translation of their mRNAs in an appropriate host. A vector may also contain elements that permit autonomous replication in a host cell independent of the host genome, and one or more phenotypic markers for selection purposes. In some
15 embodiments, where secretion of the produced protein is desired, nucleotides encoding a "signal sequence" may be inserted in front of the mutated/modified/homologues DPPI coding sequence. For expression under the direction of the control sequences, a desired DNA sequence must be operatively linked to the control sequences, i.e., they must have an appropriate start signal in front of the DNA sequence encoding the DPPI mutant,
20 modified form of DPPI or homologues DPPI and maintain the correct reading frame to permit expression of that sequence under the control of the control sequences and production of the desired product encoded by that DPPI sequence.

Such vectors include but are not limited to, bacterial plasmids, e.g., plasmids from *E. coli*
25 including *coli* E1, pCR1, pBR322, pMB9 and their derivatives, wider host range plasmids, e.g., RP4, phage DNAs, e.g., the numerous derivatives of phage lambda, e.g., NM 989, and other DNA phages, e.g., M13 and filamentous single stranded DNA phages, yeast plasmids, vectors derived from combinations of plasmids and phage DNAs, such as plasmids which have been modified to employ phage DNA or other expression control
30 sequences, cosmid DNA, virus, e.g., vaccinia virus, adenovirus or baculovirus.

The vector must be introduced into host cells via any one of a number of techniques comprising transformation, transfection, infection, or protoplast fusion. A wide variety of hosts are useful for producing mutated/modified/homologues DPPI according to this
35 invention. These hosts include, for example, bacteria, such as *E. coli*, *Bacillus* and

Streptomyces species, fungi, such as yeasts, e.g. *Saccharomyces cerevisiae*, *Pichia pastoris*, *Hansenula polymorpha*, animal cells, such as CHO and COS-1 cells, insect cells, such as *Drosophila* cells, *Trichoplusia ni* or *Spodoptera frugiperda*, plant cells, transgenic host cells and whole organism such as insects.

5

In selecting a host-vector system, a variety of factors should also be considered. These include, for example, the relative strength of the system, its controllability, and its compatibility with the DNA sequence encoding the modified DPPI of this invention. Hosts should be selected by consideration of their compatibility with the chosen vector, the
10 toxicity of the mutated/modified/homologues DPPI to them, their ability to secrete proforms or mature products, their ability to fold proteins correctly, Their ability of proteolytical processing and oligomerization, their fermentation requirements, the ease of the purification of the DPPI protein from them and safety. Within these parameters, one of skill in the art may select various vector/expression control system/host combinations that
15 will produce useful amounts of the DPPI protein.

The mutants, modified forms of DPPI or homologues DPPI produced in these systems may be purified by a variety of conventional steps and strategies. In the present invention, extracellular partially matured rat DPPI is isolated by ammonium sulphate fractionation,
20 hydrophobic interaction chromatography, desalting and anion- exchange chromatography. Other chromatographic and fractionation principles may also be used in purification of modified forms of DPPI, e.g. purification by cation exchange chromatography, high performance liquid chromatography (HPLC), immobilised metal affinity chromatography (IMAC), affinity chromatography or precipitation.

25

Once the mutant or modified DPPI has been generated, the protein may be tested for any one of several properties of interest. For example, mutated or modified forms may be tested for DPPI activity by spectrophotometric measurement of the initial rate of hydrolysis of the chromogenic substrate Gly-Phe-p-nitroanilide (Lauritzen et al. (1998) *Protein Expr.*
30 *Purif.* 14, 434-44). Mutated and modified forms may be screened for higher or lower specific activity in relation to the wild-type DPPI. Furthermore, mutants or modified forms may be tested for altered DPPI substrate specificity by measuring the hydrolysis of different peptide or protein substrates.

Mutants or modified forms of DPPI may be screened for an altered charge at physiological pH. This is determined by measuring the mutant DPPI isoelectric point (pI) in comparison with that of the wild type parent. The Isoelectric point may be measured by gel-electrophoresis. Further properties of interest also include mutants with increased stability
5 to subunit dissociation.

Mutants or modified forms of DPPI or new homologues may alternatively also be crystallised to again yield new structural data and insights into the protein structure of dipeptidyl peptidases and/or related enzymes. Thus, one embodiment of the present
10 invention relates to a crystallised molecule or molecular complex of a DPPI or DPPI-like protein, in which said molecule is mutated prior to being crystallised.

Chemical modification of DPPI

The present invention further holds chemical modification of DPPI and/or a variant hereof
15 which may be performed to characterise the protein or to obtain a protein with altered properties. In both cases, X-ray crystallographic analysis of the modified protein may provide valuable information about the site(s) of modification and structural arrangement of the organic or inorganic chemical compound and of the DPPI residues that interact with said compound. One aspect of the present invention therefore relates to a crystallised
20 molecule or molecular complex, in which said molecule is chemically and/or enzymatically modified. Another aspect of the present invention subsequently relates to the crystal structure of a so modified protein itself.

Characterisation of DPPI or DPPI-like proteins by modification with organic or inorganic
25 chemical compounds and, optionally, X-ray crystallography could be performed by reacting said DPPI or DPPI-like protein with e.g. inhibitory compounds, fluorescent labels, iodination reagents or activated polyethylen glycol ("PEGylation") or other polyhydroxy polymers. The inhibitory compounds could be compounds that bind covalently to the active site cysteine residues or at accessory binding sites. X-ray crystallographic analysis
30 of such modified DPPI or DPPI-like protein would give information important for the further development of more potent and more specific inhibitors. Fluorescent labelling and iodination of DPPI or DPPI-like proteins would permit tracing the molecules and give information about the molecular environment of fluorescent group(s). Compounds such as fluorescein-5-maleimide and fluorescein isothiocyanate, which react specifically with
35 cysteine residues and primary amines, respectively, can be utilised to attach fluorescent

labels to certain kinds of functional groups within proteins and $K^{125}I$, $K^{131}I$, $Na^{125}I$ or $Na^{131}I$ can be used for iodination of tyrosine residues. Determination by X-ray crystallography of the sites of tyrosine iodination and of attachment of fluorescent groups in particular may be essential for interpreting results from protein-protein interaction studies (binding of
5 receptors, inhibitors, cofactors etc.) and in analyses of structural rearrangements.

PEGylation is another common method of chemically modifying proteins whose crystal structure is encompassed by the present invention granted that their amino acid sequence is at least 37% identical with the amino acid of rat DPPI as shown in Figure 1. In the
10 pharmaceutical industry, PEGylation is used to increase circulating half-life and resistance to proteolysis, decrease immunogenicity and enhance solubility and stability of protein drugs.

Uses of the structure co-ordinates of DPPI

15

For the first time, the present invention permits a detailed atomic and functional description of DPPI, including descriptions of the structure of the active site, of the chlorine ion binding site, of the residual pro-part and of the interfaces between the subunits and between the catalytic and residual pro-part domains. The present invention
20 thus enables the design, selection and synthesis of chemical compounds, including inhibitory compounds, capable of binding to DPPI, including binding at the active sites of DPPI or at intramolecular interfaces. The invention can also be used to identify and characterise accessory binding sites. Furthermore, this invention can be used to rationally and semi-rationally design mutants of DPPI with altered or improved characteristics and to
25 theoretically model and facilitate experimental determination by X-ray crystallography the structures of homologous proteins, including related DPPIs from other species.

Therefore, the present invention provides a method for selecting, testing and/or rationally or semi-rationally designing a chemical compound which binds covalently or non-
30 covalently to a protein with at least 37% amino acid sequence identity to the amino acid sequence of rat DPPI protein as shown in SEQ.ID.NO.1, characterised by applying in a computational analysis structure co-ordinates of a crystal structure according to table 2.. In a preferred embodiment, the method for identifying a potential inhibitor of an enzyme with at least 37% amino acid sequence identity to the amino acid sequence of rat DPPI
35 protein as shown in SEQ.ID.NO.1, provided comprises using the atomic co-ordinates of a

crystallised molecule or molecular complex according to table 2 to define the catalytic active sites and/or an accessory binding site of said enzyme, identifying a compound that fits the active site and/or an accessory binding site so identified, obtaining the compound, and contacting the compound with a DPPI or DPPI-like protein to determine the binding
5 properties and/or effects of said compound on and/or the inhibition of the enzymatic activity of DPPI by said compound. This method can be performed on the atomic co-ordinates of a crystallised molecule or molecular complex having an at least 37% identical amino acid sequence with rat DPPI and which are obtained by X-ray diffraction studies

10 ***Potential effects of DPPI binding compounds***

Compounds that bind to DPPI may alter the properties of the enzyme or its proenzyme. For instance, a chemical compound that binds at or close to the active site or causes a structural rearrangement of DPPI upon binding may inhibit or in other ways modify the catalytic activity of the active enzyme and a compound that binds at a subunit or domain
15 interface may cause stabilisation or destabilisation of the native, oligomeric structure. Furthermore, DPPI binding compounds may decrease or increase the *in vivo* clearance rate, solubility and catalytic activity of the enzyme or alter the enzymatic specificity.

Identification of ligand binding sites

20 Knowledge of the atomic structure of DPPI enables the identification and detailed atomic analyses of ligand binding sites essential for rational or semi-rational design of DPPI binding compounds, including DPPI inhibitors. Such ligands may interact with DPPI through both covalent and non-covalent interactions and must be able to assume conformations that are structurally compatible with the DPPI ligand binding sites. The
25 locations of the active sites of DPPI subunits can be determined by the localisation of the catalytic cysteine and histidine residues (Cys234 and His381 in human DPPI, respectively; see Figure 2). Accessory binding sites may be identified by persons skilled in the art by visual inspection of the molecular structure and by means of computational methods, e.g. by using the MCSS program (available from Molecular Simulations, San
30 Diego, CA).

Design and screen of inhibitors

Once a DPPI or proDPPI ligand binding site has been selected for targeting, computer based modelling, docking, energy minimisation and molecular dynamics techniques etc. may be used by persons skilled in the art to design ligands or ligand fragments that bind
5 to DPPI, to evaluate the quality of fit and strength of interaction and to further develop and optimise selected compounds. In another aspect of the invention, compounds may be screened by computational means for their ability to bind to the surface of DPPI without defining a specific site of interaction. In yet another aspect of the invention, random or semi-random ligand libraries may be screened prior to its actual synthesis. In general,
10 computational methods can be used for selecting and optimising DPPI binding ligands, but the actual biochemical and pharmacological properties of any given ligand must be determined experimentally.

The knowledge about the crystal structure of DPPI and/or DPPI-like proteins, provided in the present invention, allows for identifying a potential inhibitor of a DPPI or DPPI-like
15 protein whereby all or some of the atomic co-ordinates of a crystal structure of a DPPI or DPPI-like protein is used to define the catalytic active sites or accessory binding sites of an enzyme with at least 37% amino acid sequence identity to the amino acid sequence of rat DPPI protein as shown in SEQ.ID.NO.1, a compound is identified that fits such an active site or accessory binding site, a compound is obtained, and
20 said compound is contacted with a DPPI or DPPI-like protein in the presence of a substrate in solution to determine the inhibition of the enzymatic activity by said compound.

In another embodiment of the present invention, a method is provided for designing a
25 potential inhibitor of a DPPI or DPPI-like protein comprising providing a three dimensional model of the receptor site in an enzyme with at least 37% amino acid sequence identity to the amino acid sequence of rat DPPI protein as shown in SEQ.ID.NO.1, and a known inhibitor, locating the conserved residues in the known inhibitor which constitute the inhibition binding pocket, and designing a new a DPPI or DPPI-like protein inhibitor which
30 possesses complementary structural features and binding forces to the residues in the known inhibitor's inhibition binding pocket.

Said identified compound and/or potential inhibitor can either be designed *de novo* or be designed from a known inhibitor or from a fragment capable of associating with a DPPI or
35 DPPI-like protein. Said known inhibitor is preferably selected from the group consisting of

dipeptide halomethyl ketone inhibitors, dipeptide diazomethyl ketone inhibitors, dipeptide dimethylsulphonium salt inhibitors, dipeptide nitril inhibitors, dipeptide alpha-keto carboxylic acid inhibitors, dipeptide alpha-keto ester inhibitors, dipeptide alpha-keto amide inhibitors, dipeptide alpha-diketone inhibitors, dipeptide acyloxymethyl ketone inhibitors, 5 dipeptide aldehyde inhibitors and dipeptide epoxysuccinyl inhibitors. And is often constructed of chemical entities or fragments capable of associating with a protein with at least 37% amino acid sequence identity to the amino acid sequence of rat DPPI protein as shown in SEQ.ID.NO.1, and reassembled after the testing procedure into a single molecule to provide the structure of said potential inhibitor.

10

Specialised computer programs are available to persons skilled in the art of structure based drug design to computationally design, evaluate and optimise DPPI ligands. DPPI binding ligands are generally designed either by connecting small ligand site binding molecules (identified using e.g. MCSS which is available from Molecular Simulations, San 15 Diego, CA) using computer programs such as Hook (Molecular Simulations, San Diego, CA) or by "de novo" design of whole ligands using computer programs such as Ludi (available from Molecular Simulations, San Diego, CA) and LeapFrog (available from Tripos, St. Louis, MO).

20 To evaluate the quality of fit and strength of interactions between ligands or potential ligands and DPPI ligand binding sites, docking programs such as Autodock (available from Oxford Molecular, Oxford, UK), Dock (available from Molecular Design Institute, University of California San Francisco, CA), Gold (available from Cambridge Crystallographic Data Centre, Cambridge, UK) and FlexX and FlexiDock (both available 25 from Tripos, St. Louis, MO) may be used. These programs and the program Affinity (available from Molecular Simulations, San Diego, CA) may also be used in further development and optimisation of ligands. Standard molecular mechanics forcefields such as CHARMM and AMBER may be used in energy minimisation and molecular dynamics.

30 The present invention thus provides the means to test and/or identify new or improved binding substances to DPPI and therefore a so identified and obtained chemical compound and/or potential inhibitor is of course encompassed in the present invention.

Determination of structures of homologous proteins

35

By using the structural co-ordinates (in whole or in part) disclosed in the present invention in molecular replacement, it is generally possible for a person skilled in the art to rapidly determine the phases of diffraction data obtained from X-ray crystallographic analysis of crystals of homologous DPPIs, including dog, mouse, bovine and blood fluke DPPI, of
5 DPPI mutants, of DPPIs in complexes with ligands and of any combination hereof.

Any phase information in the diffracted X-rays is lost upon data collection and has to be restored in order to determine the position and orientation of the molecule within the crystal, calculate the first density map and initiate model building. Without a homologous
10 structure, which can be used as a search model, the phases have to be determined experimentally from comparison of diffraction data obtained with crystals of the native enzyme and of heavy atom derivatives of the enzyme. This method of phase determination can be slow and laborious, as good heavy atom derivative data sets can be very difficult to obtain. In contrast, phase determination by molecular replacement is
15 generally fast if an appropriate search model is available.

Phase determination by molecular replacement generally involves the following steps:

- 1) Determination of the position and orientation of the crystallised molecule within the crystal using rat or human DPPI as search model. Specialised computer programs such
20 as AMoRe (Navaza (1994) Acta Cryst. A50, 157-163) or Xsight (available from Molecular Simulations, San Diego, CA) are available for this task.
- 2) Having successfully determined a set of initial phases, the first density map, which shows the approximate locations of fixed atoms, can be calculated using computer programs such as MAIN (D. Turk: Proceedings from the 1996 meeting of the International
25 Union of Crystallography Macromolecular Macromolecular Computing School, eds P.E. Bourne & K. Watenpaugh).
- 3) A model of the crystallised protein is build into the calculated density map.
- 4) The structure is refined during one or more cycles of automated refinement using programs such as X-PLOR (available from Molecular Simulations, San Diego, CA) and
30 manual rebuilding. Optionally, the electron density map may be improved by solvent flattening and noncrystallographic symmetry averaging.

Modelling of the structures of homologous proteins

In another aspect of the invention, the determined structure co-ordinates, or partial structure co-ordinates, of rat DPPI can be used, directly or indirectly, by persons skilled in the art, to model the structures of homologous proteins, for example DPPIs from other species, including dog, mouse, bovine and blood fluke DPPI, and mutant forms of DPPI.

- 5 Knowledge of the structure of rat DPPI represents a unique and essential basis for modelling of other DPPI structures.

Firstly, the residual pro-port, which is retained in the mature form of DPPI and which is now known to be indispensable for maintaining the oligomeric structure of the enzyme,
10 shares no detectable sequence homology to any other amino acid sequence, including the amino acid sequences of the known C1 family peptidase, or to translated nucleotide sequence in the publicly available databases (Swiss-Prot, GenBank etc.). Accordingly, no currently known technique or method is available for modelling the residual pro-part of DPPI without the information about the residual rat pro-part structures which is disclosed
15 in this invention.

Secondly, modelling DPPI structures on basis of the already known and publicly available X-ray structures of e.g. cathepsins H, L, S, B and K has problems because the catalytic domain of DPPI is formed by two peptide chains, the heavy chain carrying the catalytic
20 cysteine residue and the light chain carrying the catalytic histidine residue. Chain cleavages within this domain are also observed in the homologous proteases but the site of cleavage in DPPI is unique to this enzyme and, importantly, no currently published homologous X-ray structure has a chain cleavage in this position. Because of this, the modeller faces an apparent lack of modelling template. The importance of this is
25 demonstrated in the structures of rat and human DPPI in which significant spatial separations of the newly formed peptide chain termini following cleavage are revealed. Furthermore, because the cleavage site between the heavy chain and the light chain (cleavage between pro-DPPI residues R370 and D371) is close (10 residues) to the catalytic histidine residue, the impacts of the chain cleavage on the topology of the active
30 site and the active site residues would be impossible to predict accurately.

Preferably, models of DPPIs, for which the structures are not known, are build by homology modelling and generally comprises the steps of:

- 1) Aligning the amino acid sequence of the protein to be modelled with the sequence of
35 rat DPPI or human DPPI. Alternatively, all three sequences may be aligned. A preferred

- program for aligning two or more homologous amino acid sequences is Clustal W 1.8 (Thompson et al. (1994) Nucleic Acids Res. 22, 4673-4680);
- 2) An initial model is built on a suitable computer with molecular modelling software by incorporating the protein sequence into the structure of rat or human DPPI in accordance
- 5 with the alignment. Alternatively, if all three protein sequences were aligned in step 1, the rat DPPI structure is first superimposed and the model structure is subsequently build on basis of both structures;
- 3) The modelled structure may then be subjected to energy minimisation using standard force fields such as CHARMM or AMBER;
- 10 4) The energy-minimised model is remodelled in regions where stereochemistry restraints are violated and to correct bad contacts, bond distances, bond angles and torsion. Information from side chain rotamer and structure libraries may be used in modelling of low homology and/or flexible regions such as loop regions;
- 5) Optionally, molecular dynamics and more rounds of energy minimisation may be
- 15 performed. Specialised computer programs such as Modeler and Homology (available from Molecular Simulations, San Diego, CA) and are used by persons skilled in the art to perform automatic or semi-automatic homology model construction. A review on homology modelling can be found in Rodriguez et al. (1998).
- 20 Therefore, a method is provided in the present invention for selecting, testing and/or rationally or semi-rationally designing a modified protein with at least 37% amino acid sequence identity to the amino acid sequence of rat DPPI protein as shown in SEQ.ID.NO.1, characterised by applying any of the atomic co-ordinates as shown in table 2, and/or the atomic co-ordinates of a crystal structure modelled after said co-ordinates.
- 25
- The present invention furthermore relates to the use of any of the atomic co-ordinates according shown in table2 and/or the atomic co-ordinates of a crystal structure modelled after said co-ordinates for the identification of a potential inhibitor of a DPPI or DPPI-like protein and/or for the modification of a protein with at least 37% amino acid sequence
- 30 identity to the amino acid sequence of rat DPPI protein as shown in SEQ.ID.NO.1, such that it can catalyse the cleavage of a natural, unnatural or synthetic substrate more efficiently than the wild type enzyme.

Such substrates are typically selected from the group consisting of dipeptide amides and

35 esters; dipeptides C-terminally linked to a chromogenic or fluorogenic group, polyhistidine

purification tags and granule serine proteases with a natural dipeptide propeptide extension.

Following homology modelling, the quality of the model structure can be estimated using
5 specialised computer programs such as PROCHECK (Laskowski et al. (1993) J. Appl. Cryst. 26, 283-291) and Verify3D (Luthy et al. (1992) Nature 356, 83-85).

Rational and semi-rational design of DPPI mutants

The present invention further provides a method for theoretically modelling the structure of
10 a first protein with at least 37% amino acid sequence identity to the amino acid sequence of rat DPPI protein as shown in SEQ.ID.NO.1, characterised by

- a) Aligning the sequence of said first protein with the sequence of a second protein with known crystal structure or structural co-ordinates according to any of claims 16-28, and incorporating the first sequence into the structure of the second polypeptide, thereby
15 creating a preliminary structural model of said first protein,
- b) Subjecting said preliminary structural model to energy minimisation, resulting in an energy minimised model,
- c) Remodelling the regions of said energy minimised model where stereochemistry restraints are violated, and
20 d) Obtaining structure co-ordinates of the final model.

On basis of the detailed atomic and functional description of DPPI enabled by this invention, a rational or semi-rational selection of desirable amino acid residues for mutation is enabled. Such mutants can be used to further characterise the role and
25 importance of specific residues and regions within e.g. the active site, the chlorine ion binding site, the residual pro-part and the interfaces between the subunits and between the catalytic and residual pro-part domains. Also, knowledge of the structure co-ordinates of DPPI aid in selecting amino acid residues for mutagenesis with the purpose of altering the properties of DPPI. For example, it could be desirable to increase e.g. the
30 thermostability, the stability towards chaotropic agents and detergents, the stability at alkaline pH, or the catalytic efficiency (k_{cat}/K_M) or to alter the catalytic specificity. Also, it could be desirable to alter the oligomeric structure of DPPI, to enhance the intramolecular interactions between the DPPI subunits or domains or to produce mutants of DPPI with reduced sensitivity to inhibitors of the cystatin family of cysteine peptidase inhibitors, in
35 particular human cystatin C. Furthermore it could be desirable to design mutants of DPPI

with different ratios between aminopeptidase and transferase activity and reduced levels of substrate restrictions making them suitable for effective enzymatic synthesis or semisynthesis of peptides and proteins

- 5 A number of methods are available for a person skilled in the art for preparing random or directed mutants of DPPI. For example, mutations can be introduced by use of oligonucleotide-directed mutagenesis, by error-prone PCR, by UV-light radiation, by chemical agents or by substituting some of the coding region with a different nucleotide sequence either produced by chemical synthesis or of biological origin, e.g. a nucleotide
10 sequence encoding a fragment of DPPI from different species.

Random and directed mutants of DPPI can typically be expressed and purified by the same methods as described for expression and purification of wild type DPPI.

- 15 Once the mutant forms of DPPI are obtained, the mutants can be characterised or screened for one or more properties of interest. For example, the catalytic aminopeptidase efficiency can be evaluated using Gly-Phe-p-nitroanilide, Ala-Ala-p-nitroanilide, or Gly-Arg-p-nitroanilide as substrate. Alternatively, the chromogenic leaving group p-nitroanilide can be replaced with a fluorescent-leaving group, e.g. 4-methoxy
20 naphthylamide. Mutants with altered substrate specificity, e.g. mutants which can cleave peptides with N-terminal basic residues or mutants with endopeptidase activity, can be identified by comparing the catalytic efficiencies against appropriate substrates, e.g. Arg-Arg-pNA, Lys-Ala-pNA, Gly-Ser-pNA, succinyl-Gly-Phe-pNA, Gly-Pro-pNA, with the catalytic efficiency of the wild type enzyme under the same conditions. Other mutants with
25 different ratios between aminopeptidase and transferase activity with or without reduced levels of substrate restrictions are evaluated using a DPPI transferase assay. The stability of mutant forms of DPPI can be determined by e.g. incubating the mutants at elevated temperatures, in presence of chaotropic agents or detergents for the time of interest and then measure, for example, the residual aminopeptidase or transferase activity as
30 described. DPPI mutants with reduced sensitivity to inhibition by cystatins, e.g. human cystatin C, human stefins A and B and chicken cystatin, can be identified by preincubating the mutants in presence of different levels of inhibitor and then measure the residual catalytic activity.

Examples

Example1:

Construction of transfer vector for rat prepro-DPPI

5 The construction of a baculovirus transfer vector termed pCLU10-4 (identical to the vector termed pVL1393-DPPI) encoding rat DPPI preproenzyme is described in (Lauritzen et al. (1998) Protein Expr. Purif. 14, 434-442). Here, rat cDNA was prepared based on the sequence published by Ishidoh et al. (J. Biol. Chem. (1991) 266, 16312-16317). The rat prepro-DPPI encoding region was amplified by polymerase chain reaction (PCR) from the
10 cDNA pool to generate restriction sites at the 5' and 3' ends of the portion of the sequence coding for the residues Met(-24)-Leu(438). Two oligonucleotide primers, 5'-GCT CTC CGG GCG CCG TCA ACC and 5'-GCT CTA GAT CTT ACA ATT TAG GAA TCG GTA TGG C (no.6343 and no.7436 from DNA Technology, Aarhus, Denmark) were designed to specifically amplify the DNA sequence as well as to incorporate a HincII restriction site at
15 the 5' end and a BglII restriction site and a TAA stop codon at the 3' end of the coding sequence. PCR amplification was performed with these two oligonucleotide primers for 30 complete PCR cycles with each cycle involving a 1 minute denaturation step at 95°C, a 1 minute annealing step at 65°C, and a 1.5 minute polymerization step at 72°C. The cycles were followed by an extension step of 10 minutes at 72°C.

20

The 1395 bp fragment obtained from PCR amplification and digestion with HincII and BglII was ligated into baculovirus transfer vector pVL1393 (Catalogue #21201P, Pharmingen, San Diego, Calif.) at the SmaI and BglII cloning site within a multiple cloning site. The resulting transfer vector CLU10-4 also carries a strong baculovirus polyhedrin promoter, a
25 flanking polyhedrin region from the AcNPV virus as well as an E. coli origin of replication and an ampicillin resistance gene for plasmid amplification and selection in E. coli. As cloned on pCLU10-4, the fragment encoding rat DPPI is expressed under the control of the polyhedrin promoter as prepro-DPPI i.e. with the endogenous signal sequence serving to direct secretion of rat DPPI into the culture medium. Proper vector construction was
30 confirmed by nucleotide sequencing of the coding region on the constructed plasmid.

Example 2:***Construction of transfer vector for human prepro-DPPI***

A transfer vector termed pCLU70-1 encoding human DPPI proenzyme N-terminally fused to the signal sequence (pre-sequence) of rat DPPI preproenzyme was prepared as follows. The human pro-DPPI cDNA, previously described as a 1.9 kb full length prepro-hDPPI construct in pGEM-11Zf(-) (Paris et al. (1995) FEBS Lett. 369, 326-330) was amplified by polymerase chain reaction (PCR) to generate restriction sites at the 5' and 3' ends, respectively, of the portion of the hDPPI sequence coding for pro-DPPI residues -2-439 lacking all but the two N-terminal residues of the endogenous signal peptide and starting with Ser(-2) and ending with Leu(439). Two oligonucleotide primers, 5'-AAA CTG TGA GCT CCG ACA CAC CTG CCA ACT GCA-3' (NT-HSCATC from TAGCopenhagen, Copenhagen, Denmark) and 5'-ACT GAT GCA GAT CTT TAT GAA ATA CTG GAA GGC-3' (HS-RBGL from Gibco BRL, Life Technologies, Gaithersburg, Md.), were designed to specifically amplify the DNA sequence as well as incorporating a SacI restriction site at the 5' end and maintaining a TAG stop codon and creating a BglII restriction site at the 3' end of the coding sequence.

PCR amplification was performed with these two oligonucleotide primers for 25 complete PCR cycles with each cycle involving a 1 minute denaturation step at 95°C, a 1 minute annealing step at 62°C, and a 1 minute polymerization step at 72°C. The cycles were followed by an extension step of 10 minutes at 72°C.

The fragment amplified from human DPPI cDNA and digested with SacI and BglII was ligated into the baculovirus transfer vector pCLU10-4 (described in Example 1) at the SacI and BglII sites. Thereby, the rat proDPPI sequence (coding the residues (-)2-438) was deleted and replaced by the human sequence. As cloned on the resulting vector pCLU70-1, the gene fragment is expressed as a fusion between the residues 1-439 of the hDPPI sequence and the entire signal sequence for the rat DPPI protein serving to direct secretion of human DPPI into the culture medium. Proper vector construction was confirmed by nucleotide sequencing of the entire prepro-DPPI coding region on the constructed plasmid.

Example 3:***Preparation of recombinant baculoviruses***

For the preparation of recombinant baculoviral stocks, pCLU10-4 and pCLU70-1 were
5 transformed into E. coli strain TOP10 (Catalogue #C4040-10, Invitrogen, Groningen, The
Netherlands), amplified and purified by well-established methods (Wizard Plus SV
Minipreps DNA Purification Systems, Promega, Madison, WI). The purified transfer
vectors pCLU10-4 and pCLU70-1 were co-transfected with BaculoGold DNA (Catalogue
#21100D, Pharmigen, San Diego, Calif.) into Spodoptera frugiperda Sf9 cells (American
10 Type Culture Collection, Rockville, Md.) using the calcium phosphate protocol (Gruenwald
et al. (1993) Procedures and Methods Manual, 2nd ed., Pharmigen, San Diego, Calif.
p.44-49). BaculoGold is a modified baculovirus DNA which contains a lethal deletion and
accordingly cannot encode for a viable virus by itself. When co-transfected with a
complementing transfer plasmid, such as pCLU10-4 or pCLU70-1, carrying the essential
15 gene lacking in BaculoGold, the lethal deletion is rescued and viable virus particles can be
reconstituted inside transfected insect cells.

Sf9 cells were maintained and propagated at 27-28°C as 50 ml suspension cultures in
roller bottles and seeded as monolayers when used for co-transfection, plaque assays or
20 small scale amplifications. Sf9 cells were for all purposes grown in BaculoGold Serum-
Free medium (Catalogue #21228M, Pharmigen, San Diego, Calif.) supplemented with 5%
heat inactivated foetal bovine serum (Gibco BRL, Catalogue #10108-157). Gentamycin
(Gibco BRL, Catalogue # 15750-037) to 50 mg/ml were added to cultures used for co-
transfection and plaque assays.

25

Example 4:***Virus purification, verification, and amplification***

The virus generated in the co-transfection with BaculoGold DNA and transfer vectors
30 were plaque purified (Gruenwald et al. (1993) Procedures and Methods Manual, 2nd ed.,
Pharmigen, San Diego, Calif. p. 51-52) to generate virus particles for further infections.
The structure of the purified viruses were verified by PCR. Picked plaques were
suspended in 100 µl medium and incubated at 4°C for >18 hours. 15 µl of this suspension
were used to infect High Five™ (Trichoplusia insect cells) (BTI-TN-5B1-4) (Invitrogen) in
35 monolayers. High Five™ cells were maintained and propagated at 27-28°C as 30-200 ml

suspension cultures in 490 or 850 ml roller bottles in Express Five™ SFM medium (Gibco BRL, Cat. # 10486-025), supplemented with L-Glutamine to 16.5 mM. (Gibco BRL, Cat. # 25030). 1×10^6 cells in 2 ml medium were seeded into 6-well multidishes just before infection. The infected cells were incubated 96 hours at 27-28°C, and samples of 150 μ l were taken and prepared for PCR analysis. To the 150 μ l were added 350 μ l H₂O, 50 μ l 10% SDS and DNA was extracted from this mixture by a phenol/chloroform extraction and precipitation by ethanol and finally the DNA pellet was resuspended in 10 μ l H₂O. 1 μ l hereof was used for PCR amplification using primers specific for the human DPPI sequence and conditions similar to the ones used for amplification of the coding regions of DPPI (Example 1 and 2). When the PCR product was analyzed on an agarose gel, a band of the expected size was obtained. Samples from cells infected with wild type AcNPV did not show this band. Recombinant viruses were also analysed for their ability to mediate expression of active DPPI. For this purpose, samples of culture medium from the infected High Five™ cells described immediately above were taken 120 hours post infection and tested using the assay as described in Example 7. When isolates were selected after the PCR analysis and the activity analysis, master virus stocks were prepared by a subsequent amplification of the plaque eluates on Sf9 cells in monolayer (Gruenwald et al. (1993) Procedures and Methods Manual, 2nd ed., Pharmigen, San Diego, Calif. p. 52-53). High titre viral stocks ($>1 \times 10^8$ plaque forming units/ml) used for scaling up the production of prepro-DPPI were obtained by further amplification on 50 ml Sf9 cell cultures in suspension (1×10^6 cells/ml) using a multiplicity of infection (MOI) of 0.1-0.2. Virus titres were determined by plaque assay.

25 **Example 5:**

Expression of extracellular DPPI in insect cell/baculovirus system (BEVS)

Viral stocks of CLU10-4 and CLU70-1, prepared as described in Example 4, were used to infect suspension cultures of High Five™ cells in roller bottles in Express Five™ SFM medium supplemented with L-Glutamine to 16.5 mM. Infection of insect host cells in different experiments were carried out at a multiplicity of infection (MOI) of 1-10. Cell densities at the time of infection were varied in the range of 5×10^5 to 2×10^6 cells/ml. Cell culturing was continued for up to 6 days and samples were collected and analyzed for DPPI activity on each day from day 2 (48 hours post infection). DPPI enzyme activity was measured in the clarified media (15,000 x g, 2 minutes). Recombinant DPPI was secreted

as unprocessed proenzyme and the proteolytic maturation required for activity was initiated in the medium. Activation was completed *in vitro* by 1-2 days of incubation at low pH but for analytical purposes, activation could also be accelerated by papain treatment as described in (Lauritzen et al. (1998) Protein Expr. Purif. 14, 434-442). 5 days post infection, recombinant DPPI levels of 0.1-1 unit/ml of culture were achieved with both the human and the rat DPPI. A typical time course of DPPI activity in the culture medium from a 150 ml High Five TM culture seeded to 1×10^6 cells/ml and infected with CLU70-1 at an MOI of 2 is shown in the table 3 below.

10 **Table 3**

	without papain activation	with papain activation
72 hours post infection (units/ml)	0.02	0.26
96 hours post infection (units/ml)	0.09	0.40
120 hours post infection (units/ml)	0.543	0.629

Example 6:*Scale-up of secreted human and rat pro-DPPI production*

15

High Five TM cells grown in Express Five TM SFM medium supplemented with L-Glutamine to 16.5 mM were used to produce secreted human and rat DPPI in 0.3-2.5 litre production scales. Approximately $1.0-1.5 \times 10^6$ cells/ml in volumes of 150 ml per 850 ml roller bottle were infected with a viral stock of CLU70-1 or pCLU10-4 at an MOI of 1-10.

20 The roller bottles were incubated at 27-28°C with a speed of 12 rpm. 120 hours post infection, the medium was cleared from cells and cell debris by centrifugation at 9000 rpm, 10°C, 15 minutes.

25 **Example 7:***Purification of recombinant human and rat DPPI*

- Recombinant human or rat DPPI (rhDPPI and rrDPPI, respectively), in the form of partially or fully processed enzyme, could be purified from the insect cell supernatant by ammonium sulphate fractionation followed by hydrophobic interaction chromatography, desalting and anion exchange chromatography. To the clarified supernatant from e.g.
- 5 1800 ml of CLU10-4 or CLU70-1 infected cell culture was added $(\text{NH}_4)_2\text{SO}_4$ to 2 M and cysteamine-HCl and EDTA to 5 mM. The pH was then adjusted to 4.5 using 1 M citric acid followed by stirring for 20 min. The resulting precipitate was removed by centrifugation and filtration. The conditioned supernatant was loaded at a flow-rate of 10-15 ml/min onto a Butyl Sepharose FF (Pharmacia, Uppsala, Sweden) column ($5.3 \text{ cm}^2 \times 35 \text{ cm}$)
- 10 equilibrated with 20 mM citric acid, 2 M $(\text{NH}_4)_2\text{SO}_4$, 100 mM NaCl, 5 mM cysteamine, 5 mM EDTA, pH 4.5. The column was washed with 100 ml equilibration buffer and rhDPPI or rrDPPI was eluted with a linear gradient of 2-0 M $(\text{NH}_4)_2\text{SO}_4$ in equilibration buffer over 100 ml (6.6 ml/min). Fractions containing DPPI activity were pooled and incubated at 4°C for 18-40 hours to obtain a fully processed form (see below).
- 15 The preparation of rrDPPI or rhDPPI was then desalted on a Sephadex G-25 F (Pharmacia, Uppsala, Sweden) column ($5.3 \text{ cm}^2 \times 35 \text{ cm}$) equilibrated with 5 mM sodium phosphate, 1 mM EDTA, 5 mM cysteamine, pH 7.0. This buffer was also used to equilibrate a Q-Sepharose FF (Pharmacia, Uppsala, Sweden) column ($2 \text{ cm}^2 \times 10 \text{ cm}$) onto which the collected G-25 F eluate was loaded at a flow rate of 3 ml/min. After
- 20 washing the column, rhDPPI or rrDPPI was step-eluted with desalting buffer containing 250 mM NaCl. The enzyme preparation could finally be concentrated to 40-50 units/ml in a dialysis bag embedded in PEG 6000. Finally, the enzyme preparation was formulated by addition of 1/20 volume of 5 M NaCl and 1.35 volumes of 86-88% glycerol. All chromatographic steps were carried out at $20\text{-}25^\circ\text{C}$ and the formulated product was
- 25 stored at -20°C .

- DPPI eluted from the hydrofobic interaction column was in general only partially processed to the mature, active form. To complete the processing, the eluate was incubated at pH 4.5 and 4°C for 18-40 hours to convert the immature peptides to the peptides of mature rrDPPI or rhDPPI. The proteolytic processing of the peptides was
- 30 accomplished by one or more cysteine peptidases present in the eluates of the Butyl Sepharose FF column and could be completely blocked by the addition of $1 \mu\text{M}$ E-64 cysteine peptidase inhibitor or $0.1 \mu\text{M}$ chicken cystatin. Furthermore, the rate of processing was dependent on the pH of the buffer during incubation. No conversion of the immature peptides could be observed at pH 7.0 as determined by SDS-PAGE analysis
- 35 but processing was observed when incubation was performed at pH 6.5 or below. The

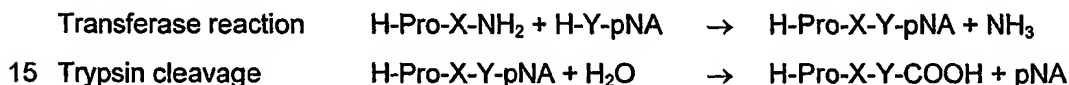
processing proceeded at highest rate at about pH 4.5. The fully processed rhDPPI and rrDPPI were finally purified and concentrated on Q-Sepharose FF as described above. Recombinant hDPPI was quantified using an extinction coefficient at 280 nm of 2.0.

5 *Example 8:*

DPPI transferase assay

The rate of transfer of dipeptides from a donor peptide to the nucleophilic amino terminus of an acceptor peptide, the ratio of dipeptide transfer to hydrolysis and the stability of
10 elongated peptide product to hydrolytic turnover are estimated in a transferase assay.

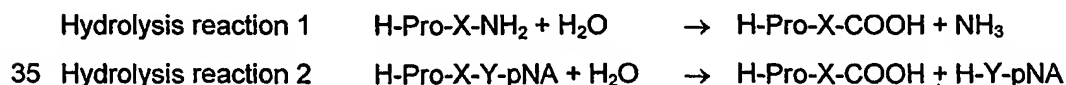
The assay reactions are:



In these reactions, X and Y are any amino acid residue with the exception of prolyl. X is preferably Phe and Y is preferably Arg or Lys and pNA is a para-nitroanilide group. H and COOH indicate unblocked peptide amino and carboxy termini, respectively.

20 In the transferase reaction, DPPI catalyses the transpeptidation of dipeptide H-Pro-X from the peptide amide to the free amino group of residue Y. The dipeptide can not be transferred to a second H-Pro-X-NH₂ molecule because of the N-terminal Pro residue. The progress of the transpeptidation reaction is monitored in the trypsin cleavage reaction, in which produced H-Pro-X-Y-pNA tripeptide is hydrolysed following the addition
25 of trypsin endoprotease to an aliquot of reaction mixture. Trypsin hydrolyses H-Pro-X-Arg/Lys-pNA much more rapidly than H-Arg/Lys-pNA (low aminopeptidase activity) making it possible to determine the amount of tripeptide formed. The transferase reaction is essentially stopped upon addition of trypsin because the reactants are diluted 10-fold (resulting in an approximately 100-fold lower rate) and because DPPI is unstable at pH
30 8.3.

The concentration of tripeptide obtained also depends on the rates of hydrolysis of the initial substrate (Hydrolysis reaction 1) and of the tripeptide (Hydrolysis reaction 2):



The hydrolysed peptides H-Pro-X-COOH and H-Pro-X-COOH are not DPPI substrates and can no longer be used in peptide synthesis. Accordingly, the peptidase activity of DPPI degrades both the trypsin substrate (before trypsin is added to the reaction mixture) and one of its precursors.

Experimental details:

20 µl of DPPI (1-50 U/ml) in 20 mM Tris-HCl or sodium phosphate-NaOH buffer pH 7.5 is mixed with 20 µl 20 mM dithiothreitol (DTT) and allowed to incubate for 30 min at 5-37°C, preferably 12°C. Meanwhile, 10 µl 400 mM H-Pro-X-NH₂ and 10 µl 500 mM H-Y-pNA (both in 100% dimethyl formamide) and 140 µl 100 mM Tris-HCl or sodium phosphate-NaOH buffer, pH 7.5 are mixed and incubated at the same temperature. The transferase and hydrolysis reactions are initiated by the addition of reduced and activated DPPI to the peptide mixture (same temperature). All reaction mixtures should include a minimum of 10 mM chloride.

The progress of the reaction is followed by mixing 10 µl aliquots with 1 µM trypsin in 0.1 M Tris-HCl buffer pH 8.3 and at 5-37°C, preferably 20-37°C. A yellow colour quickly appears. After 10 min, 1000 µl of water are added and the absorbance at 405 nm is measured against an appropriate blank.

Results:

The transferase activities of wild type rat DPPI and rat DPPI mutants Asp274 to Gln274 (D274Q) and Asn226:Ser229 to Gln226:Asn229 (N226S229:Q226N229) is determined in the above transferase assay and the results are shown in **Figure 8**. From the results it can be concluded that the D274Q mutation has no favourable influence on rat DPPI transferase activity. However, the N226S229:Q226N229 double mutant designed for this purpose generates the tripeptide substrate nearly as fast as the other two variants and the produced product is much more stable in presence of this rat DPPI variant. The maximum level of tripeptide also shows that the transferase activity is favoured over the hydrolytic activity.

DPPI activity assay

DPPI aminopeptidase activity was determined by spectrophotometrical measurement of the initial rate of hydrolysis of the chromogenic substrate Gly-Phe-p-nitroanilide (Sigma). One unit was defined as the amount of enzyme required to convert 1 μ mol of substrate per minute under the described conditions. For samples of culture medium, the assay was performed as follows: 1 part of medium was mixed with 2 parts of 200 mM cysteamine and 1 part of either water (without papain activation) or 1 mg/ml papain (with papain activation). After 10 min of incubation at 37°C, the mixture was supplemented 1:1 with fresh 200 mM cysteamine. This sample was immediately diluted 1:19 with preheated assay buffer containing the substrate (20 mM citric acid, 150 mM NaCl, 1 mM EDTA, 4 mM Gly-Phe-p-nitroanilide, pH 4.5) and the change in absorbance at 405 nm (37°C) was measured. More concentrated samples of rDPPI and HT-rDPPI enzyme collected from steps of the purification procedure were diluted an additional 10 times with assay buffer prior to the final mixing with 200 mM cysteamine and assay buffer with substrate. The background level of hydrolysis of Gly-Phe-p-nitroanilide in the supernatant from wild-type AcNPV-cell cultures measured both with and without papain addition corresponded to 0.02 units DPPI activity per milliliter of culture. A qualitative test for DPPI activity was carried out in 96-well plates. Samples were activated with or without papain as described above. The samples and assay buffer including substrate was mixed in the wells (1:6), and the plate was incubated at 37°C for up to 18 h and then inspected for the appearance of yellow color.

Example 9:

Crystallization of rat DPPI and collection of native and heavy atom derivative X-ray diffraction data.

The stock solution contained 1.5 mg/ml of protein as estimated by absorption at 280 nm, assuming an extinction coefficient of 1.0, in 25 mM sodium phosphate pH 7.0, 150 mM NaCl, 1 mM ethylene diamine triacetate (EDTA), 2 mM cysteamine and 50% glycerol. The solution was stored at -18°C. Prior to crystallisation, 10 ml of the stock solution was dialysed for 20 hours against 5 l of 20 mM bis-tris-HCl pH 7.0, 150 mM NaCl, 2 mM dithiothreitol (DTT), 2 mM EDTA. Dialysis was performed against two times 2 litres (4 and 18 h, respectively) with no apparent difference in behaviour of the enzyme preparation. The protein was concentrated to 16.1 mg/ml and a fast screen was set up (HAMPTON Crystal Screen I). The hanging drop vapour diffusion technique was employed with 0.8 ml reservoir solution and drops containing 2 μ l protein solution and 2 μ l reservoir solution.

Crystals appeared after 30 min in condition 4 (0.1 M Tris pH 8.5, 2.0 M $(\text{NH}_4)_2\text{SO}_4$). Crystals grew from conditions 4, 6, 17, 18, and 46. Incubation under conditions 4, 6 and 17 resulted in the formation of star-shaped crystals whereas conditions 18 and 46 resulted in box-shaped crystals.

5

Optimisations using incomplete factorial design experiments showed an optimum for the box shaped crystal form using reservoir solution containing 0.1 M bis-tris propane pH 7.5, 0.15 M calcium acetate and 10 % PEG 8000. Drops were set up with equal volumes of reservoir solution and protein solution. The protein concentration was 12 mg/ml. A representative crystal is shown in **Figure 6**. The box-shaped crystals diffracted very poorly (out to 5 Å resolution at best).

Optimum crystallisation conditions for the star-shaped crystal form were fairly close to the fast screen conditions and at 1.4 M $(\text{NH}_4)_2\text{SO}_4$ and 0.1 M bis-tris propane pH 7.5, each drop contained one to three well defined crystals. The maximum length (the 'diameter') varied between 0.5 and 1 mm, the thickness varied between 0.1 and 0.4 mm at the centre. A representative crystal is shown in **Figure 7**. These crystals diffracted to between 4 and 5 Å resolution on rotating anode equipment and to 3 Å resolution using synchrotron radiation at $\pm 10^\circ\text{C}$. When cryo conditions were found and the crystals could be cooled to 110 K, they diffracted to 2.4 Å resolution (see the following section).

Initial diffraction experiments were performed on the RAXIS II imaging plate detector using $\text{CuK}\alpha$ radiation from a rotating anode operated at 50 kV, 180 mA. Diffraction was never detected beyond 4.2 Å under these conditions. Therefore, the crystals were taken to the MAX LAB synchrotron facility in Lund, Sweden. Unfortunately, cooling the crystals to 110 K using glycerol or glucose as a cryo protectant did not improve the diffraction power. Furthermore, the cryo protectant quite often ruined the crystal completely. The use of PEG destroyed the crystals instantaneously. For the collection of derivative data (see below), glycerol was most often used as a cryo protectant based on the observation that crystals incubated with glycerol survived for longer periods of time (over night), as determined by visual inspection, than did crystals incubated with glucose (visible damage after 2 h). It was also possible to cool down the crystals taken directly from the mother liquor to -15°C in a capillary without ice formation because of the high $(\text{NH}_4)_2\text{SO}_4$ content. The space group was determined to be hexagonal based on auto indexing in the program DENZO (Otwinowski, Z, Minor, W. (1997) *Methods Enzymol.* 276 A, 307-326). Processing

the data in P6 with SCALEPACK (Otwinowski, Z, Minor, W. (1997) *Methods Enzymol.* **276** A, 307-326) and searching for systematic absences in hklview from the CCP4 program suite (Collaborative Computational Project, Number 4 (1994) *Acta Crystallogr. D* **50**, 760-763) gave the symmetry along the axes and the space group was determined to be either
5 P6422. The unit cell dimensions are $a = 166.24 \text{ \AA}$, $b = 166.24 \text{ \AA}$, $c = 80.48 \text{ \AA}$, $\alpha = 90^\circ$, $\beta = 90^\circ$, $\gamma = 120^\circ$.

This rather large unit cell gave rise to a very dense diffraction pattern which introduced the danger of overlap between reflections. This can be overcome in several ways: 1) By
10 moving the detector away from the crystal since the divergence of the diffracted beams relative to each other is larger than the divergence of the individual beams because the X-ray beam is focused; 2) By collecting with fine ϕ slicing, i.e. by oscillating over a very narrow angular space ($< 1^\circ$) such that the reflections recorded only represent a very narrow 'slice' of reciprocal space; 3) By orienting the crystal such that a full data set is
15 recorded with as few images as possible being recorded while the incoming beam is parallel to a long unit cell axis; 4) By ensuring that the beam is well focused and that the cross section of the beam is of the same size as that of the crystal; 5) By optimising the cryo conditions to reduce mosaicity. Depending on the crystal and equipment, only some of these options may be open to the experimenter. In the case of cathepsin C crystals, the
20 derivative data sets and the first native data set were recorded at -10°C . At such high temperatures, there is extensive radiation damage to the crystal and as completeness of the data is of primary concern, the fine ϕ slicing method is not an option. Under these conditions, the crystals only diffracted to a maximum of 3 \AA so the detector can be moved far away from the crystal but also here, this must be balanced since the diffracted beams
25 lose intensity as a function of the distance they travel through air. By fine tuning the experiment, it was possible to obtain relatively good data from the cathepsin C crystals at -10°C . However, they suffered from rather poor resolution (between 3 and 4 \AA) and incompleteness.

30 Following fine tuning the experimental conditions, it was possible to record an incomplete data set to $3\text{-}4\text{\AA}$ resolution at -10°C .

Optimisation of cryo conditions

Encouraged by the work by Garman (Garman, E. (1999) *Acta Crystallogr. D* **55**, 1641-
35 1653), a search for new cryo conditions was initiated. Soaking the rat DPPI crystals with

glucose seemed to give slightly better results with respect to diffraction, pointing out the fact that the visual damage to the crystal as a result of prolonged incubation with the cryo protectant (described above) is perhaps not a good parameter for determining the proper cryo solution. The following experiment was then carried out: a series of reservoir

5 solutions containing from 6% to 34% sucrose in steps of 2 %-points, except the last step which was 8 %-points, was prepared. A crystal was carefully transferred with a cryo loop from the mother liquor to the first drop where it rested for 1 minute, then on to the next for 1 minute and so on. Crystal mounting took approximately 3-4 seconds and was performed by blocking the cryo stream (N₂ gas at 110 K) with a credit card, positioning the loop on

10 the goniometer head and removing the card. Several crystals were tested. The largest crystals seemed to exhibit slightly higher mosaicity. Crystals with a diameter of 0.5 mm gave the best results which is probably because the larger ones takes a significant time in the stream before the core reaches the same temperature as the surface. Using crystals with a diameter of 0.5 mm, a complete data set to 2.4 Å resolution and with high

15 redundancy was collected (see Table 1.1). The structure at 2.4 Å has currently been refined to $R = 0.247$, $R_{\text{free}} = 0.282$.

Data collection and statistics	
Crystal to detector distance (mm)	255
$\Delta\phi$ (°)	1
Angular space covered (°)	132
λ (Å)	0.984
Resolution range	30.0-2.4
Completeness (%)	99.2
Number of reflections	741631
Unique reflections	25816
R_{sym} (%)	7.1/32.2
R_{merge} (%)	8.1

20

Table 1.1. Data collection details and statistics for the native dataset used to solve the structure of rat DPPI. data were collected at the MAX Lab synchrotron, beam line 711.

Determining the phases by multiple isomorphous replacement (MIR)

The phases for the structure factor amplitudes calculated from the X-ray diffraction pattern from crystals of rat DPPI were determined by the method of multiple isomorphous replacement (Blundell, T.L., Johnson, N.L. (1976) *Protein Crystallography*, Academic Press). A major problem concerning the initial experimental work on DPPI crystals was

5 the lack of cryo conditions combined with poor X-ray diffraction. This necessitated high radiation dosage and thus the crystals rapidly lost diffraction power during X-ray exposure because of the radiation damage, especially when using synchrotron radiation. It was not possible to record complete data sets. Incompleteness of a derivative data set is in principle not very serious once the heavy atom positions have been determined since

10 from that point on, everything is calculated in reciprocal space and the phase extension functions very efficiently fill in the gaps. Needless to say, completeness of the native data set is important. Unfortunately, the method used at the time to solve the phase problem of DPPI was the difference Patterson method. Incompleteness of derivative data can be a problem if the derivative is weak, i.e. low occupancy or if there is noise due to non-

15 isomorphism, since the missing reflections are set to zero for the difference Patterson calculation which is presumably a poor estimate. Three derivative data were analysed. These were mercury acetate (Hg-acetate), dipotassium tetrachloro aurate (K_2AuCl_4), and *para*-hydroxy mercuribenzoic acid (PHMBA). Laborious attempts to solve the difference Patterson maps were undertaken. Sites were obtained which gave even poorer phasing

20 statistics than the ones shown in **Table 1.2** because the sites were imprecisely determined due to noise and the co-ordinate refinement in the CCP4 program mlphare (number 4, 1991) used did not refine co-ordinates sufficiently. Furthermore, the difference in statistics between invented sites (i.e. sites with random co-ordinates) and sites deduced from the difference Patterson maps were very small although the phasing power of 'real'

25 sites was consistently slightly higher, and adding 'real' sites to the refinement gave increased figures of merit. A heavy atom site search was performed using a modified version of the molecular replacement program AMoRe (Navaza, J. (1994) *Acta Crystallogr. A* **50**, 157-163), called HAMoRe (Anders Kadziola). AMoRe performs a real space rotation search (Navaza, J. (1993) *Acta Crystallogr. D* **49**, 588-591) and a

30 reciprocal space translation search (Navaza, J., Vernoslova, E. (1995) *Acta Crystallogr. A* **51**, 445-449). Assuming that the heavy atom peaks are spherical, there is no need for a rotation search and so the calculation can be restricted to reciprocal space thus avoiding the noise in the difference Patterson map introduced by the missing reflections. The method is very reliable and has been implemented for heavy atom searching in CNS

35 program (Brünger, A.T., Adams, P.D., Clore, G.M., DeLano, W.L., Gros, P., Grosse-

Kunstleve, R.W., Jiang, J.S., Kuszewski, J., Nilges, M., Pannu, N.S., Read, R.J., Rice, L.M., Simonson, T., Warren, G.L. (1998) *Acta Crystallogr. D* **54**, 905-921). The HAMoRe fast translation function search found 2 sites in each derivative data set. Each site was systematically omitted and validated by difference searches using the phase information from the other sites. These six sites were scaled against the native data set, refined and phases were calculated for the native data set between 8 and 3.5 Å (Table 1.2). As can be seen, the phasing power and R_{cullis} values for these sites were relatively low. Combining the sites in mlphare gave an overall figure of merit of 0.491 and after solvent fattening and histogram matching using dm (Cowtan, K., Main, P. (1998) *Acta Crystallogr. D* **54**, 487-493) from the CCP4 suite, this value increased to 0.610.

Data set	HgCl ₂	K ₂ AuCl ₄	PHMBA
Number of unique reflections	6204	6523	5681
Completeness (%)	72	75	66
Resolution (Å)	15.0-3.3	15.0-3.2	15.0-3.3
Weighted R_{iso} ^a (15-3.5 Å)	0.504	0.512	0.483
Number of sites used for phasing	2	2	2
Figure of merit ^b	0.30	0.31	0.27
Phasing power ^c	1.18	1.08	1.18
R_{cullis} ^d	0.81	0.85	0.81

Table 1.2: Data collection and phasing statistics of heavy atom derivatives of rat cathepsin C crystals. PHMBS = para-hydroxy mercurybenzoic acid. Lack of closure analysis using means. Acentric reflections only. ^a $R_{\text{iso}} = \sum hkl |F_{\text{der}} - F_{\text{nat}}| / \sum |F_{\text{nat}}|$. ^bThe figure of merit, $m = |F_{hkl}(\text{best})| / |F_{hkl}|$, such that $F_{hkl}(\text{best}) = |F_{hkl}| m \exp [i\alpha(\text{best})]$, where $\alpha(\text{best})$ is centroid of the phase angle probability distribution. ^cThe phasing power is the root mean square of F_h/E where F_h is the structure factor for the heavy atom contribution and E is the residual lack of closure. ^d $R_{\text{cullis}} = \sum |F_{h(\text{obs})} - F_{h(\text{calc})}| / \sum F_{h(\text{obs})}$.

Attempting at this stage to extend the phases all the way to 2.4 Å gave figures of merit below 0.3 for extended phases. This extended map was better than the non-extended as determined by visual inspection. Yet, the map could not readily be interpreted. Using the

phases after density modification as input in mlphare along with the refined heavy atom sites to aid the refinement and precision of phasing gave a mean figure of merit of 0.926 for all reflections to 3.5 Å (mlphare output) and after phase extension to 2.4 Å, in dm, the mean figure of merit was 0.567 for reflections to 2.4 Å. This map was much nicer but exhibited streaking in the z-direction hampering model building. By dividing the data set in resolution shells and plotting the strongest reflection for each bin an outlier was detected around 4.5 Å resolution ($hkl = (36, 10, 1)$). This outlier was excluded and the streaking disappeared. The map was now interpretable. Although the papain core domain part of the protein was modelled into the density and this constitutes half or more of the entire structure, model phases were avoided for phasing because of the danger of model bias. Combining experimental phases with model phases (using CCP4 programs sfall and sigmaa) did in fact give alarmingly nice density around the model without improving the map outside the model.

Example 10:

15 Design and construction of rat DPPI active site mutant Asp274 to Gln274

From investigations of the three dimensional structure of rat DPPI, it can be concluded that Asp274 (pro-DPPI numbering) is one of the only charged residues located in the active site of rDPPI, which get in close proximity to the two N-terminal residues that dock into the S₁ and S₂ substrate binding pockets upon successful binding of an appropriate peptide substrate into the active site cleft of rDPPI. Mutation of this residue may effect the catalytic function of the enzyme, in particular with respect to hydrolysing peptide substrates having lysine or arginine residues located in the penultimate position (second residue from the N-terminus; peptides with N-terminal lysine or arginine residues are not substrates) as these basic residues may interact favourably with the negative charge on Asp274 in the wild type enzyme. Removing the negative charge on Asp274 may thus change the specificity of the enzyme.

Because of the large size of those lysine and arginine residue side chains that may interact favourably with Asp274, one can chose to mutate Asp274 to a glutamine residue. A Gln residue is selected because it is uncharged, has a structure comparable to Asp, is able to function as both a hydrogen bond donor and acceptor and is slightly longer than Asp thereby potentially compensating for shorter lengths of penultimate substrate residue side chains.

To perform site-directed mutagenesis of rat DPPI residue Asp274 into glutamine, according to the method of Nelson and Long (1989) (Nelson, R.M. and Long, G.L. (1989) A general method of site-specific mutagenesis using a modification of the *Thermus aquaticus* polymerase chain reaction. *Anal. Biochem.* **180**, 147-51), the degenerate reverse oligonucleotide MR1 (5'-TGG GAA TCC ACC TT(G/C) ACA ACC TTG GGC-3'), encoding either Gln or Glu in position 274, is used. First, cDNA encoding wild type rat prepro-DPPI (contained in baculovirus transfer vector pCLU10-4, stock #30) is amplified in a polymerase chain reaction (PCR) using the MR1 oligonucleotide and a hybrid forward oligonucleotide, HF1 (5'-CGG GCT GAC TAA CGG CGG GGC AAT TTT GTT AGC CCT GTT CG-3'). The 3' end of HF1 anneals upstream of a unique *EcoRI* site in the cDNA (see **Figure 1**) whereas the 5' end of HF1 has the same sequence as the oligonucleotide H5' (5'-CGG GCT GAC TAA CGG CGG GG-3'). Following amplification and purification of the product (201 bp, all fragment sizes are approximate), the amplified fragment is annealed to the same wild type rat prepro-DPPI template and extended towards the 3' end of the cDNA in 2 PCR amplification cycles. Hereafter, the temperature of the reaction mixture is maintained at 85°C while the forward H5' oligonucleotide and the reverse oligonucleotide R2 (5'-GTG TCG GGT TTA ACA TTA CG-3'), which anneals downstream of a unique 3' *BglII* restriction site, are added. Following the addition of oligonucleotides, a second round of PCR amplification is performed. The produced fragment of 763 bp carries the unique *EcoRI* and *BglII* sites close to its termini, and after *EcoRI* and *BglII* digestion of both this fragment and of the vector and de-phosphorylation of the vector ends using alkaline phosphatase (calf intestinal), the PCR amplified *EcoRI*-*BglII* fragment of 583 bp is ligated into the vector. Following transformation and isolation of pure clones, bacterial colonies carrying the desired transfer vectors, with a single mutagenised codon encoding either a glutamine or a glutamate residue in position 274, is identified by DNA sequencing.

Experimental conditions:

30 Purification of transfer vector pCLU10-4

Vector pCLU10-4 is purified from a bacterial culture of transformed TOP10 cells by JETStar midi-prep, ethanol/ammonium acetate precipitation, washing in 70% ice-cold ethanol and redissolution in 1:1 (v/v) mixture of demineralised water and 10 mM TB buffer (pH 8.0). The concentration of plasmid is approximately 0.3 µg/µl as estimated by agarose gel electrophoresis and comparison of the ethidium bromide staining intensity with those of DNA fragment size marker bands (*HindIII* digested lambda-phage DNA).

EcoRI/BglII restriction digestion of transfer vector pCLU10-4

In an Eppendorph reaction tube, the following chemicals are mixed:

5		
	Transfer vector pCLU10-4	30.0 µl
	EcoRI (25 U/µl, Pharmacia)	0.35 µl
	BglII (15 U/µl, Pharmacia)	0.60 µl
	10x React 3 buffer (Life Technologies)	3.5 µl
10	<i>Incubation at 37°C for 30 min</i>	
	Alkaline phosphatase (1 U/µl, Pharmacia)	0.2 µl
	<i>Incubation at 37°C for 30 min</i>	

The cleavage reaction is purified by preparative agarose gel electrophoresis and the
 15 excised *EcoRI*–*BglII* fragment can be observed in the gel (583 bp). The vector of 10.408
 bp is recovered from the gel by freezing and thawing of the gel portion containing the
 vector, centrifugation of the gel portion (10,000 rpm/10min) in a Costar Spin-X centrifuge
 tube (catalogue # 8162), equipped with a 0.22 µm cellulose acetate filter that withholds
 the denatured agarose but not buffer or DNA, and ethanol/ammonium acetate
 20 precipitation of the flow-through. The precipitated vector is washed and redissolved in 50
 µl of water.

Amplification of transfer vector pCLU10-4 using HF1 and MR1 oligonucleotides

25		
	Transfer vector pCLU10-4 (<i>XhoI</i> digest)	0.5 µl
	10x AmpliTaq reaction buffer (Perkin Elmer)	10 µl
	25 mM MgCl ₂ (C ^{Mg2+} _{final} = 1.5 mM)	6 µl
	4 x 5 mM dNTP	4 µl
30	HF1 (50 µM)	2 µl
	MR1 (50 µM)	2 µl
	Demineralised water	76 µl
	<i>Incubation at 95°C for (5':00)</i>	
	<i>Temperature shift to 85°C (5':00")</i>	
35	Addition AmpliTaq DNA polymerase (5U/µl)	0.5 µl

Oil overlay

15 PCR cycles:

95°C (1':00") then 50°C (1':00") then 72°C (0':30") [repeated]

72°C (10':00") then 4°C (hold)

5

The amplified fragment (201 bp) is purified by 1.5% agarose gel electrophoresis, freezing and thawing and centrifugation in Costar SpinX columns.

Elongation and amplification of HF1:MR1 product

10

Transfer vector pCLU10-4 (XhoI digest) 0.5 µl

10x AmpliTaq reaction buffer (Perkin Elmer) 10 µl

25 mM MgCl₂ (C^{Mg2+}_{final} = 1.5 mM) 6 µl

4 x 5 mM dNTP 4 µl

15 Purified HF1:MR1 amplification product 2 µl

Demineralised water 74 µl

Incubation at 95°C for (5':00)

Temperature shift to 85°C (5':00")

Addition AmpliTaq DNA polymerase (5U/µl) 0.5 µl

20 Oil overlay

2 PCR cycles:

95°C (1':00") then 50°C (2':00") then 72°C (5':00") [repeated]

Addition of oligonucleotide after 1':30" of the second 72°C incubation:

H5' (50 µM) 2 µl

25 R2 (50 µM) 2 µl

15 PCR cycles:

95°C (1':00") then 60°C (1':00") then 72°C (10':00") [repeated]

72°C (10':00") then 4°C (hold)

30 The amplified fragment is purified by 1.5% agarose gel electrophoresis, freezing and thawing and centrifugation in Costar SpinX columns. The fragment is further purified using the QiaQuick PCR purification kit (Qiagen, catalogue #28106).

EcoRI/BglII restriction digest of H5':R2 PCR product

35 In an Eppendorph reaction tube, the following chemicals are mixed:

H5':R2 PCR product	25.0 µl
EcoRI (25 U/µl, Pharmacia)	1.4 µl
BglII (15 U/µl, Pharmacia)	1.7 µl
5 10x React 3 buffer (Life Technologies)	3.3 µl
<i>Incubation at 37°C for 1 hr</i>	

30 µl cleavage reaction mixture is subjected to preparative agarose gel electrophoresis and the purified product is recovered using SpinX and QiaQuick spin columns as described. The final elution volume is 40 µl.

Ligation of EcoRI:BglII cut pCLU10-4 vector and H5':R2 fragment

EcoRI:BglII cut pCLU10-4	2 µl
15 EcoRI:BglII cut H5':R2 fragment	6 µl
10x All-for-One ⁺ buffer (Pharmacia)	1 µl
10 mM ATP	1 µl
T4 DNA ligase	0.5 µl
<i>Incubation at 16°C for 2 hrs</i>	
20 <i>Incubation at 4°C over night</i>	

The ligated vector is transformed into electrocompetent *E. coli* TOP10 cells using a BTX *E. coli* TransPorator™ charged with 1.500 V (1 mm cell width). Transformed cells are reconstituted in SOC medium and purified and identified by plating on agar plates containing 100 µg/ml ampicillin. Incubation at 37°C for 15-20 hrs. Clones carrying vectors with the desired sequence is identified by DNA sequencing of purified plasmid DNA using e.g. the R2 oligonucleotide as a primer in the sequencing reaction. The described methods and the technique of DNA sequencing are well known to people skilled in the arts.

30 **Example11:**

Design and construction of rat DPPI active site mutant Asn226:Ser229 to Gln226:Asn229

From investigations of the three dimensional structure of rat DPPI, residues Asn226 and Ser229 (pro-DPPI numbering) are selected for mutation to increase the affinity of the

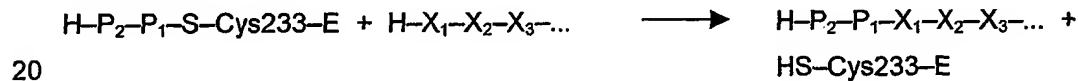
active site cleft prime-site substrate binding sites (sites that bind substrate residues C-terminal of the cleavage site) for peptide substrates. Following formation of the thio-ester bond in the first step of catalysis (see reaction scheme 1#, step 1), a stronger binding of peptides to the prime-site substrate binding region is suggested to favour liberation of the bound N-terminal portion of the substrate by aminolysis (step 2, aminolysis) and potentially reduce hydrolysis (step 2, hydrolysis) as a result of steric hindrance of water molecules by the bound peptides. In the reaction scheme, P_x and P_y' represent substrate residues located N- and C-terminal of the cleavage site, respectively, HS-Cys233 is the catalytic cysteine in the enzyme E and X_n are residues in the acceptor peptide that causes aminolysis.

Reaction scheme 1#

Step 1



Step 2 (aminolysis)



Step 2 (hydrolysis)



The mutation of Asn226 and Ser229 into Gln and Asn, respectively, may enhance peptide binding by having longer side chains that can participate in hydrogen bond formation, both as donors and acceptors. In the structure of rat DPPI, it can be seen that the side chains of Asn226 and Ser229 may be too short to strongly interact with peptide substrates.

Experimental conditions:

To perform site-directed mutagenesis of rat DPPI residue Asn226 and Ser229 into Gln226 and Asn229, according to the method of Nelson and Long (1989) (Nelson, R.M. and Long,

G.L. (1989) A general method of site-specific mutagenesis using a modification of the *Thermus aquaticus* polymerase chain reaction. *Anal. Biochem.* **180**, 147-51), the degenerate reverse oligonucleotide MR1 (5'-TGG GAA TCC ACC TT(G/C) ACA ACC TTG GGC-3'), the degenerate forward oligonucleotide MF5 (5'-TAG CCC TGT TCG ACA
 5 ACA AGA A(A/G)A TTG TGG AAG CTG C-3'), encoding Gln in position 226 and either Asn or Asp in position 229, is used. First, cDNA encoding wild type rat prepro-DPPI (contained in baculovirus transfer vector pCLU10-4, stock #30) is amplified in a polymerase chain reaction (PCR) using the MF5 oligonucleotide and a hybrid reverse oligonucleotide, HR2 (5'-CGG GCT GAC TAA CGG CGG GGG GCA ACT GCC ATG
 10 GGT CCG-3'). The 3' end of HR2 anneals downstream of a unique *EcoRI* site in the cDNA (see **Figure 1**) whereas the 5' end of HR2 has the same sequence as the oligonucleotide H5' (5'-CGG GCT GAC TAA CGG CGG GG-3'). Following amplification and purification of the product (402 bp), the amplified fragment is annealed to the same wild type rat prepro-DPPI template and extended towards the 5' end of the cDNA in 3
 15 PCR amplification cycles. Hereafter, the temperature of the reaction mixture is maintained at 85°C while the reverse H5' oligonucleotide and the forward oligonucleotide F1 (5'-CGG ATT ATT CAT ACC GTC CC-3'), which anneals upstream of a unique 5' *SacI* restriction site, are added. Following the addition of oligonucleotides, a second round of PCR amplification is performed. The produced fragment of (1179 bp) carries the unique *SacI*
 20 and *EcoRI* sites in its termini, and after *SacI* and *EcoRI* digestion of both this fragment and of the vector and de-phosphorylation of the vector ends using alkaline phosphatase (calf intestinal), the PCR amplified *SacI*-*EcoRI* fragment of 740 bp is ligated into the vector. Following transformation and isolation of pure clones, bacterial colonies carrying the desired transfer vectors, with a single mutagenised codon encoding either a
 25 asparagine or a aspartate residue in position 229, is identified by DNA sequencing.

***SacI*/*EcoRI* restriction digestion of transfer vector pCLU10-4**

In an Eppendorf reaction tube, the following chemicals are mixed:

30

Transfer vector pCLU10-4 (prepared as described)	25.0 µl
<i>SacI</i> (15 U/µl, Pharmacia)	2.0 µl
<i>EcoRI</i> (25 U/µl, Pharmacia)	1.2 µl
10x One-Phor-All ⁺ buffer (Pharmacia)	4.0 µl
35 Demineralised water	8.0 µl

Incubation at 37°C for 40 min

Alkaline phosphatase (1 U/μl, Pharmacia) 0.5 μl

Incubation at 37°C for 35 min

- 5 The cleavage reaction is purified by preparative agarose gel electrophoresis and the excised *SacI*–*EcoRI* fragment can be observed in the gel (740 bp). The vector of 10.251 bp is recovered from the gel portion by freezing and thawing of the gel portion containing the vector, centrifugation of the gel (10,000 rpm/10min) in a Costar Spin-X centrifuge tube (catalogue # 8162), equipped with a 0.22 μm cellulose acetate filter that withholds the
- 10 denatured agarose but not buffer or DNA, and ethanol/ammonium acetate precipitation of the flow-through. The precipitated vector is washed and redissolved in 50 μl of water.

Amplification of transfer vector pCLU10-4 using MF5 and HR2 oligonucleotides

- | | |
|---|--------|
| Transfer vector pCLU10-4 (<i>XhoI</i> digest) | 0.5 μl |
| 15 10x AmpliTaq reaction buffer (Perkin Elmer) | 10 μl |
| 25 mM MgCl ₂ (C ^{Mg2+} _{final} = 1.5 mM) | 6 μl |
| 4 x 5 mM dNTP | 4 μl |
| MF5 (50 μM) | 2 μl |
| HR2 (50 μM) | 2 μl |
| 20 Demineralised water | 76 μl |
- Incubation at 95°C for (5':00)*
- Temperature shift to 85°C (5':00")*
- | | |
|--|--------|
| Addition AmpliTaq DNA polymerase (5U/μl) | 0.5 μl |
|--|--------|
- Oil overlay
- 25 15 PCR cycles:
- 95°C (1':00") then 50°C (1':00") then 72°C (0':30") [repeated]
- 72°C (10':00") then 4°C (hold)

- The amplified fragment (402 bp) is purified by 1.5% agarose gel electrophoresis, freezing
- 30 and thawing and centrifugation in Costar SpinX columns.

Elongation and amplification of MF5:HR2 product

- | | |
|--|--------|
| Transfer vector pCLU10-4 (<i>XhoI</i> digest) | 0.5 μl |
| 10x AmpliTaq reaction buffer (Perkin Elmer) | 10 μl |
| 35 25 mM MgCl ₂ (C ^{Mg2+} _{final} = 1.5 mM) | 6 μl |

4 x 5 mM dNTP	4 µl
Purified MF5:HR2 amplification product	10 µl
Demineralised water	65 µl

Incubation at 95°C for (2':00)

5 *Temperature shift to 85°C (5':00")*

Addition AmpliTaq DNA polymerase (5U/µl)	0.5 µl
--	--------

Oil overlay

3 PCR cycles:

95°C (1':00") then 50°C (2':00") then 72°C (5':00") [repeated]

10 *Addition of oligonucleotide after 1':30" of the second 72°C incubation:*

H5' (50 µM)	2 µl
-------------	------

F1 (50 µM)	2 µl
------------	------

20 PCR cycles:

95°C (1':00") then 60°C (1':00") then 72°C (10':00") [repeated]

15 *72°C (10':00") then 4°C (hold)*

The amplified fragment is purified using the QiaQuick PCR purification kit (Qiagen, catalogue #28106). The product is eluted in 50 µl TE buffer.

20 **SacI/EcoRI restriction digest of F1:H5' PCR product**

In an Eppendorf reaction tube, the following chemicals are mixed:

F1:H5' PCR product	48.0 µl
--------------------	---------

SacI (15 U/µl, Pharmacia)	2.0 µl
---------------------------	--------

25 EcoRI (25 U/µl, Pharmacia)	1.2 µl
-------------------------------	--------

10x All-for-One ⁺ buffer (Pharmacia)	5.5 µl
---	--------

Incubation at 37°C for 1 hr

The cleavage reaction mixture is subjected to preparative agarose gel electrophoresis and

30 the purified product is excised and recovered using SpinX and QiaQuick spin columns as described.

Ligation of SacI:EcoRI cut pCLU10-4 vector and F1:H5' fragment

35 SacI:EcoRI cut and dephos. pCLU10-4 vector	8 µl
---	------

SacI:EcoRI cut H5':R2 fragment	9 µl
10x All-for-One ⁺ buffer (Pharmacia)	1 µl
10 mM ATP	2 µl
T4 DNA ligase	0.5 µl

5 *Incubation at 16°C for 2 hrs*

Incubation at 4°C over night

The ligated vector is Ethanol/ammonium acetate precipitated, washed in 70% ethanol and redissolved in 5 µl TE buffer. 1 µl of this plasmid is used to transform electrocompetent *E.*
 10 *coli* DH10B cells using a BTX *E. coli* TransPorator™ charged with 1.500 V (1 mm cell width). Transformed cells are reconstituted in SOC medium and purified and identified by plating on agar plates containing 100 µg/ml ampicillin. Incubation at 37°C for 15-20 hrs. Clones carrying vectors with the desired sequence is identified by DNA sequencing of purified plasmid DNA using e.g. the F1 oligonucleotide as a primer in the sequencing
 15 reaction. The described methods and the technique of DNA sequencing are well known to people skilled in the arts.

Example 12:

The crystal structure of human DPPI.

20

RESULTS

The structural co-ordinates are shown in table 2b.

Overall structure: Tetrahedron is dimer of dimers.

25

The tetrameric molecule of DPPI has a shape of a slightly flattened sphere with a diameter of approximately 80 Å and a spherical cavity with a diameter of about 20 Å in the middle. The molecule has tetrahedral symmetry. The molecular symmetry axis coincides with the crystal symmetry axis of the I222 space group. The asymmetric unit of the crystal
 30 thus contains a monomer. Each monomer consists of three domains, the two domains of the papain-like structure containing the catalytic site, and an additional domain. This additional domain with no analogy within the family of papain-like proteases contributes to the tetrahedral structure and creates an extension of the active site cleft providing

features which endow DPPI with amino-dipeptidyl peptidase activity (Figure 10). We term this additional domain the "residual propart" domain (Dahl et al., 2001).

The residues of a monomer are numbered consecutively according to the zymogen
5 sequence (Paris et al., 1995). The observed crystal structure of the mature enzyme
contains 119 residues of the residual propart domain from Asp 1 to Gly 119 and 233
residues of the two papain-like domains from Leu 207 to Leu 439. The papain-like
structure is composed of N-terminal heavy and C-terminal light chains generated by
cleavage of the peptide bond between Arg 370 and Asp 371. The 87 propeptide residues
10 from Thr 120 to His 206, absent in the mature enzyme structure, were removed during
proteolytic activation of the proenzyme. The structure confirms the cDNA sequence (Paris
et al., 1995) and is in agreement with the amino acid sequence of the mature enzyme
(Cigic et al., 1998; Dahl et al., 2001). With the exception of Arg 26, all residues are well
resolved in the final 2fo- σ electron density map. The conformations of the regions Asp 27
15 - Asn 29 within the residual propart domain and Gly 317 - Arg 320 at the C-terminus of the
heavy chain are partially ambiguous.

During activation, the structure of DPPI undergoes a series of transformations. From the
presumably monomeric form of preproenzyme (Muno et al., 1993), via a dimeric form of
20 proenzyme (Dahl et al., 2001), the tetrameric form of the mature human enzyme is
assembled (Dolenc et al., 1995). Visual inspection along each of the three molecular
twofold axes showed that one of the axes reveals a head-to-tail arrangement of a pair of
papain-like and residual propart domains (Figure 10b). The N-terminus of the residual
propart domain of one dimer binds into the active site cleft of the papain-like domain of the
25 next, while the C-terminus of one papain-like domain binds into the beta-barrel groove of
the adjacent residual propart domain of its symmetry mate. The N-termini of the heavy
and light chains are, however, arranged around one of the two remaining twofold axis
each. Interestingly, both chain termini result from proteolytic cleavages that appear during
proenzyme activation, whereas the head-to-tail arrangement involves chain termini,
30 already present in the zymogen. This suggests that the head-to-tail arrangement
observed in the crystal structure originates from the zymogen form, whereas the N-termini
contacts are suggested to be formed during tetramer formation. The 87 residue
propeptide, cleaved off during activation, not only blocks access to the active site of the
enzyme, but also prevents formation of the tetramer. This is in contrast to the proenzymes
35 of related structures (Turk et al., 1996; Cygler et al., 1996; Podobnik et al., 1997). A similar

role is given to the approximately eight residue insertion from Asp 371 to Leu 378, cleavage of which breaks the single polypeptide chain of the papain-like domain region into heavy and light chains.

- 5 The positioning of the residual propart domain at the end of the active site cleft and the extended contact surface with the papain-like domain leaves no doubt as to which three domain unit form the functional monomer (Figure 10). However, the question as to whether the domains of a functional monomer originate from the same polypeptide chain, as would be assumed, is not so clear. The disconnected termini of the head-to-tail dimer
- 10 (C-termini of the residual propart domains and N-termini of heavy chains) are 45Å apart and visual inspection of the structure of the cathepsin B propeptide (Podobnik et al., 1997) superimposed on the structure of DPPI provides no clear hints. Therefore, resolution of this question must await a zymogen crystal structure determination.

15 *Papain-like domains structure*

- The two domains of the papain-like structure are termed left- (L-) and right- (R-) domains according to their position as seen in Figure 10c. The L-domain contains several alpha-helices, the most pronounced being the structurally conserved 28 residue long central
- 20 alpha-helix with catalytic Cys 234 on its N-terminus. The R-domain is a beta-barrel with a hydrophobic core. The interface of the two domains is quite hydrophobic, in contrast to the interface of the cathepsin B structure (Musil et al., 1991), which is stabilised by numerous salt bridges. The interface opens in front, forming the active site cleft, in the middle of which is the catalytic ion pair of the Cys 234 and His 381.
- 25 The papain-like domains contain nine cysteines, six of them being involved in disulfide bridges (231 - 274, 267 - 307, 297 - 313) and three being free (catalytic Cys 234, Cys 331 and Cys 424). The side chain of Cys 424 is exposed to the solvent and is the major binding site for the osmium and the only site for the gold derivative, whereas the side chain of Cys 331 is buried into the hydrophobic environment of the side chains of Met
- 30 336, Met 346, Val 324 and Ala 430.

Residual propart domain structure

- The residual propart domain forms an enclosed structure allowing it to fold independently
- 35 from the rest of the enzyme (Cigic et al., 2000). This domain folds as an up-and-down

beta-barrel composed of eight antiparallel beta-strands wrapped around a hydrophobic core formed by tightly packed aromatic and branched hydrophobic side chains. The strands are numbered consecutively as they follow each other in the sequence. The residual propart domain contains four cysteine residues, which form two disulfide bridges
5 (Cys 6 - Cys 94, Cys 30 - Cys 112). The N-terminal residues from Asp 1 to Gly 13 seal one end of the beta-barrel, whereas there is a broad groove filled with solvent molecules and a sulfate ion at the other end (Figure 10c, d).

Two long loops project out of the beta-barrel. The first, (Ser 24 - Gln 36) is a broad loop
10 from the beta-strand number 1, shielding the first and the last strands from solvent. This loop additionally stabilizes the barrel structure via the disulfide Cys 30 - Cys 112, which fastens the loop to strand 8. The second loop (Lys 82 - Tyr 93), termed hairpin loop, is a two strand beta-sheet structure with a tight beta-hairpin at its end. The loop comes out of strands 7 and 8 and encloses the structure by the disulfide Cys 6 - Cys 94 which connects
15 the loop to the N-terminus of the residual propart domain. This loop stands out of the tetrameric structure (Figure 10a, c) and is reminiscent of cathepsin X 110-123 loop (Guncar et al., 2000) by its pronounced form and charged side chains, indicating a possible common role of these structural features.

20 *Interface of papain-like domains and the residual propart domain*

All three domains make contacts along the edges of the two papain-like domains and form a large binding surface of predominantly hydrophobic character. The wall is formed by beta-strands 4 to 7 of the residual propart domain that attaches to the surface of the
25 papain-like domains. There are three stacks of parallel side chains from each of the strands of the beta-sheet, mentioned above, interacting in a zipper-like manner with the side chains of a short three turn alpha-helix between Phe 278 - Phe 290. This feature is a conserved structural element in all homologous enzymes. The middle turn of this helix contains an additional residue, Ala 283, thus forming a pi helical turn, which is a unique
30 feature of DPPI. The branched side chain of Leu 281 is the central residue of a small hydrophobic core formed at the interface of the three domains. Only the side chain of Glu 69 escapes the usual beta-sheet side chain stacking and forms a salt bridge with Lys 285. The exchange of electrostatic interactions continues from Lys 285 towards the side chains of His 103 and Asp 289.

The active site cleft

The four active site clefts are positioned approximately at the tetrahedral corners of the molecule, about 50 to 60 Å apart and are exposed to the solvent. Each active site cleft is
5 formed by features of all three domains of a functional monomer of DPPI (Figure 11), the papain-like domains forming the sides of the monomer which is closed at one end by the residual propart domain.

The reactive site residues Cys 234(25) - His 381(159) form an ion pair and are at their
10 usual positions above the oxyanion hole formed by the amides of Gln 228 (19) side chain and Cys 234(25) main chain. An HE1 hydrogen atom from a ring of Trp 405(177) is in the correct orientation to bind a substrate carbonyl atom of a P1' residue and the extended stretch of conserved Gly 276(65) - Gly 277(66) is in the usual place to bind a substrate P2 residue with an anti-parallel hydrogen bond ladder (Turk et al., 1998d). The resulting
15 hydrogen bonds are indicated in Figure 11. (For easier sequence comparison, the papain numbering is given in parentheses.)

As expected, the substrate binding area beyond the S2 binding site is blocked. DPPI utilizes the residual propart domain to build a wall, which prevents formation of a binding
20 surface beyond the S2 substrate binding site. This wall spans across the active site cleft as well as away from it. A broad loop made of the N-terminal five residues surrounds the S2 binding site and forms a layer across the active site cleft. The blockade of the cleft is additionally enhanced by carbohydrate rings attached to Asn 5. (The first carbohydrate ring is well resolved by the electron density map.) Behind the N-terminal loop, there is an
25 upright beta-hairpin (Lys 82 - Tyr 93), which protrudes far into the solvent.

Substrate binding sites

Surprisingly, the anchor for the N-terminal amino group of a substrate is not the C-
30 terminal carboxylic group of a peptide chain, as expected based on analogy with cathepsin H (Guncar et al., 1998) and bleomycin hydrolase (Joshua-Tor et al., 1995), but instead, it is the carboxylic group of the Asp 1 side chain, the N-terminal residue of the residual propart domain (Figure 11). The N-terminal amino group of Asp 1 is fixed with two hydrogen bonds between the main chain carbonyl of Glu 275 and the side chain
35 carbonyl of Gln 272. The Asp 1 side chain reaches towards the entrance of the S2 binding

site, where it interacts with the electrostatically positive edge of the Phe 278 ring (Figure 11).

- The side chains of Ile 429, Pro 279, Tyr 323 and Phe 278 form the surface of the S2 binding site. This site has a shape of a pocket, and is the deepest such known this far. The bottom of the pocket is filled with an ion and two solvent molecules. The high electron density peak, chemical composition of the coordinated atoms, and the requirement of DPPI for chloride ions, lead to the conclusion that this ion is chloride. It is positioned at the N-terminal end of the three-turn helix (Phe 278 - Phe 290) and is coordinated by the main chain amide group of Tyr 280 (3.2 Å and 3.3 Å) away from hydroxyl group of Tyr 323 and two solvent molecules (Figure 11). The ring of Phe 278 is thus positioned with its electro-positive edge between the negative charges of chloride and Asp 1 carboxylic group.
- 15 The surfaces of the other substrate binding sites (S1, S1', S2') show no features unique for DPPI, when compared with other members of the family (Turk et al., 1998d). The S1 binding site is placed between the active site loops Gln 272 - Gly 277 and Gln 228 - Cys 234, beneath the disulfide 274-231 and Glu 275. The S1' substrate binding site is rather shallow with a hydrophobic surface contributed by Val 352 and Leu 357 and the S2' binding site surface is placed within the Gln 228 - Cys 234 loop. The molecular surface along the active site cleft beyond the S2' binding area is wide open, indicating that there is no particular site defined for binding of substrate residues.

DISCUSSION

25

Mechanisms of exopeptidases: peptide patches and the residual propeptide domain

- Elucidation of the structure of DDPI explains its unique exopeptidase activity. Figure 12 clearly shows that converting endo- to exo-peptidase activity of a papain-like protease is achieved by features added on either side of the active site cleft to the structure of a typical papain-like endo-peptidase framework (Turk et al., 1998d; McGrath, 1999). Carboxypeptidases cathepsins B (Musil et al., 1991) and X (Guncar et al., 2000) utilise loops which block access along the primed side and provide histidine residues to anchor the C-terminal carboxylic group of a substrate. In contrast, the amino peptidases cathepsin H (Guncar et al., 1998) and a more distant homolog bleomycin hydrolase
- 35

(Joshua-Tor et al., 1995) utilise a polypeptide chain in an extended conformation that blocks access along the non-primed binding sites and provides its C-terminal carboxylic group as the anchor for the N-terminal amino group of a substrate. DPPI recognizes the N-terminal amino group of a substrate in a unique way. The anchor is a charged side-
5 chain group of the N-terminal residue Asp 1, folded as a broad loop on the surface. However, this loop is not a part of a polypeptide chain of the papain-like domains, but belongs to an additional domain. It has an independent origin that adds to the framework of a papain-like endopeptidase and turns it into an exopeptidase. The residual propart domain excludes any endopeptidase activity of the enzyme.

10

Substrate excluding specificity of DPPI

The selectivity of DPPI is best described by exclusion rules and the disclosed structure provides a variety of clues for understanding their mechanism.

15

DPPI shows no endopeptidase activity in contrast to cathepsins B and H. It is, however, inhibited by cystatin type inhibitors, non-selective protein inhibitors of papain-like cysteine proteases (Turk et al., 2000), as are the other papain-like exopeptidases, i.e. cathepsins B, H, and X. The patches on the papain-like endopeptidase structure framework
20 responsible for cathepsins B and H exopeptidase activity are relatively short polypeptide fragments, which lie on the surface (Musil et al., 1991; Guncar et al., 1998). It was shown for the cathepsin B occluding loop (Illy et al., 1997; Podobnik et al., 1997) that these rather flexible structural features compete with substrates and inhibitors for the same binding sites within the active site cleft. A similar function has been suggested for the
25 cathepsin H mini-chain (Guncar et al., 1998). Analogously, the flexibility of the five N-terminal residues of the residual propart domain can explain the complex formation of DPPI with cystatin type inhibitors. However, proximal to this short region is the massive body of the residual propart domain with its extended binding surface for the papain-like domain and its projecting feature beta-hairpin Lys 82 - Tyr 93 tightly fastened within the
30 tetrameric structure. Therefore, it is highly unlikely that the residual propart domain could be pushed away by an approaching polypeptide. This indicates the robust mechanism by which endopeptidase activity of DPPI is excluded. Control on the micro level is then achieved by the carboxylate group of the Asp 1 side chain, which is oriented towards the active site cleft to rule out approach of substrate without an N-terminal amino group
35 (McGuire et al., 1992), as demonstrated in Figure 11.

DPPI, similarly to most other papain-like proteases, does not cleave substrates with proline at P1 or P1' position. A simple modeling study suggests that proline residues at these positions would disturb the hydrogen bonding network and may produce clashes in
5 the S1 substrate binding site.

The side chain carboxylate group points towards the S2 substrate binding site, where it can bind to the N-terminal NH₃⁺ group of the substrate, thereby directing dipeptidyl aminopeptidase specificity. Positive charges on lysine and arginine residues could interact
10 with Asp1 resulting in a re-positioning of the substrate and explain why substrates with these side chains at the N-terminal are not cleaved.

The residual propart domain is a structural homolog of a protease inhibitor

15 For the residual propart domain, no sequence homolog is known, however, 44 similar structural folds were found using DALI (Holm and Sander, 1996). The highest similarity scores were obtained with the structures of streptavidin (1SWU) and *erwinia chrysanthemi* inhibitor (1SMP), whose structure was determined in complex with the serratia metallo-protease (Baumann et al., 1995). (The codes in parentheses are Protein Data Bank
20 accession numbers.)

The large number of structural homologs is not surprising, as the eight-stranded antiparallel beta-barrels are a common folding pattern. However, the geometry of binding the *erwinia chrysanthemi* inhibitor to metallo-protease also points to a functional similarity.
25 The N-terminal tail of *erwinia chrysanthemi* inhibitor binds into the active site cleft of the *serratia marcescens* metallo-protease along the substrate binding sites towards the active site cleft. Even the chain traces of the N-terminal parts are similar, i. e., an extended chain, which continues into a short helical region (Figure. 13). In contrast to the residual propart domain of DPPI, which enters the active site cleft from the non-primed region (in a
30 substrate-like direction), the N-terminal tail of *erwinia chrysanthemi* inhibitor binds along the primed substrate binding sites (in the direction opposite to that of a substrate). It is thus intriguing to suggest that the residual propart domain is an adapted inhibitor, which does not abolish the catalytic activity of the enzyme, but prevents its endopeptidase activity by blocking access to only a portion of the active site cleft.

Genetic disorders located on DPPI structure

Quite a few of the genetic disorders of DPPI described are nonsense mutations resulting in truncation of the expressed sequence (Hart et al., 1999; Toomes et al., 1999).

- 5 However, there is a series of missense mutations (D212Y, V225F, Q228L, R248P, Q262R, C267Y, G277S, R315C and Y323C) in the sequence of the heavy chain (Figure 6a) (Toomes et al., 1999; Hart et al., 2000a; Hart et al., 2000b; Allende et al., 2001). Their structure based interpretation suggests that not all missense mutations necessarily result in complete loss of DPPI activity.

10

Gln 228 and Gly 277 are two of the key residues involved in substrate binding. Mutation of Q228L disrupts the oxyanion hole surface and consequently severely effects productive binding of the carbonyl oxygen of the scissile bond of the substrate. The G277S mutation presumably disrupts the main chain - main chain interactions with the P2 residue, as the
15 glycine conformation can not be preserved (see Figure 11).

- The most frequent missense mutation appears to be the Y323C (Toomes et al., 1999; Hart et al., 2000b). Normally the hydroxyl group of Tyr 323 is involved in the binding of the chloride ion, which seems to stabilize the S2 substrate binding site (Figure 14b). The
20 mutation into a cysteine may not only disrupt chloride binding but also positioning of the Phe 278 and consequently Asp 1. The change to a cysteine residue carries yet more impact. It may alter the structure of the short segment of the chain towards Cys 331 by forming a new disulfide bond. Even the binding surface for the residual proapart domain may be disrupted and it is possible that this mutant may not form an oligomeric structure
25 at all and may thus even exhibit endopeptidase activity.

- The mutations C267Y, R315C and Q262R are located around the surface loop enclosed by the disulfide Cys 297 - Cys 313. In the observed structure, the side chains of Gln 262 and Phe 298 form the center around which the loop is folded (Figure 14a). Cys 267 is
30 located in the vicinity of Gln 262 and fastens the structure of the loop via the disulfide Cys 267 - Cys 307. Arg 315 is involved in a salt bridge with Glu 263, the residue following the central loop residue Gln 262, and is adjacent to Cys 313. Either of these mutations may thus prevent proper folding of the loop and disrupt formation of the two disulfides. Free cysteines may thus result in non-native disulfide connectivity, which has the potential to
35 aggregate the improperly folded DPPI monomers.

The R248P mutant presumably leads to folding problems as a proline at this position quite likely breaks the central helix at the second turn from its C-terminus. A phenylalanine ring at the position of Val 225 is too large to form the basis of the short loop Asn 403 - Gly 413 and thereby disrupts the primed substrate binding sites, in particular the positioning of the conserved Trp 405 involved in P1' residue binding (see Figure 11).

The mutation D212Y, however, seems to represent a special case. It does not appear to be linked to the active site structure or aggregation problems. Asp 212, the 6th residue from the N-terminus of the papain-like domain, is exposed to the surface where it forms a salt bridge with Arg 214. Disruption of the salt bridge structure may result in a different positioning of the N-terminus and since the N-terminal region is involved in molecular symmetry contacts, this mutation may prevent tetramer formation (Figure 14c).

15

DPPI is a protease processing machine

Oligomeric proteolytic machineries as 20S proteasome (Lowe et al., 1995; Groll et al., 1997), bleomycin hydrolase (Joshua-Tor et al., 1995), or tryptase (Pereira et al., 1998) restrict access of substrates to their active sites. Proteasomes are barrel-like structures composed of four rings of alpha and beta-subunits, which cleave unfolded proteins captured in the central cavity into short peptides. Tryptases are flat tetramers with a central pore in which the active sites reside. The pore restricts the size of accessible substrates and inhibitors. And also the active sites of bleomycin hydrolase are located within the hexameric barrel cavity. In contrast, the active sites of DPPI are located on the external surface, allowing the tetrahedral architecture to introduce a long distance between them, which allows them to behave independently. This turns DPPI into a protease capable of hydrolysis of protein substrates in their native state, regardless of their size. It's robust design, supported by the oligomeric structure, confines the activity of the enzyme to an aminodipeptidase and thereby makes it suitable for use in many different environments, where DPPI can selectively activate quite a large group of chymotrypsin-like proteases.

EXPERIMENTAL PROCEDURES

35

Protein purification and crystallization

DPPI was expressed in the insect cell/baculovirus system as described above. The purified DPPI was concentrated to 10 mg/ml in a spin concentrator (Centricon, Amicon).

- 5 Crystals were grown using sitting drop vapor diffusion method. The reservoir contained 1 ml of 2.0 M ammonium sulphate solution with 0.1M sodium citrate and 0.2M potassium/sodium tartrate at pH 5.6 (Hampton screen II, solution 14). The drop was composed of 2 μ l reservoir solution and 2 μ l of protein solution. Acetic acid and Na-hydroxide were used to adjust pH.

10

- The crystals of DPPI belong to the orthorhombic space group I222 with cell dimensions $a=87.15\text{\AA}$, $b=88.03\text{\AA}$, and $c=114.61\text{\AA}$. Native crystals diffracted to 2.15\AA resolution on XRD1 beamline in Elettra. Before data collections, crystals of DPPI were soaked in 30% glycerol solution before they were dipped into liquid nitrogen and frozen. All data sets
15 were processed using the program DENZO (Otwinowski and Minor, 1997).

Phasing and structure solution

- The position of the enzymatic domain was determined by molecular replacement
20 implemented in the EPMR program (Kissinger et al., 1999) using various cathepsin structures. The partial model did not enable the inventors to proceed with the structure determination, therefore a heavy atom derivative screen was performed. Two soaks proved successful ($\text{K}_2\text{Cl}_6\text{Os}_3$ and AuCl_3). A three wavelength MAD data set of osmium derivative was measured at Max-Planck beamline at DESY Hamburg. Native data set had
25 to be used as a reference to solve the heavy atom positions and treat the MAD data as MIR data. The RSPS program (Knight, 1989) suggested a single heavy atom position. The derived map was not of sufficient quality to enable model building. It did, however, show that the molecular replacement solution and MAD/MIR map were consistent. Phasing based on a single gold heavy atom site and an additional five minor osmium
30 heavy atom sites located from the residual maps, refined and solvent flattened with SHARP (de La Fortelle and Bricogne, 1997) using data to 3.0\AA , resulted in an interpretable electron density map.

Refinement and structure validation

35

This structure was then refined to an R-value of 0.184 (R-free 23.8 using 5% of reflections) against 2.15 Å resolution data. When using 2.6 Å data, individual B-value refinement was included and with 2.4 Å resolution data and R-value about 0.24, the inclusion of solvent molecules was initiated using an automated procedure. The
5 chloride ion was identified from a water molecule, which, after positional and B-value refinement, returned a B-value for oxygen at the minimum boundary. It was still positioned within a 4.5 sigma positive peak of the Fo-Fc difference electron density map. Three sulfate ions were found by visual inspection of large clouds of positive density, contoured at 3.0 sigma in the vicinity of already built solvent molecules. The only carbohydrate ring
10 observed was attached to Asn 5 in the residual propart domain. It was recognized from a cluster of solvent molecules and peaks of positive density in Fo-Fc map and positioned among them.

All model building steps, structure refinement and map calculations were done using
15 MAIN (Turk, 1992) running on Compaq Alpha workstations. The Engh and Huber force field parameter set was used (Engh and Huber, 1991). Structure analysis was performed with MAIN during the entire course of model building and refinement: particularly useful were averaged kicked-maps which, in the cases of doubt, pointed to the correct electron density interpretation. The final model was inspected and validated with the
20 program WHAT CHECK (Hooft et al., 1996).

The substrate model using the N-terminal sequence of granzyme A ERIIGG, was generated on the basis of crystal structures of papain family enzymes complexed with substrate mimicking inhibitors, as described (Turk et al., 1995). Binding of substrate
25 residues P2 and P1 into the S2 and S1 binding sites was indicated by chloromethylketone substrate analogue inhibitors bound to papain (Drenth et al., 1976). The binding of P1' and P2' residues into the S1' and S2' binding sites was suggested by CA030 in complex with cathepsin B (Turk et al., 1995). The model was built manually on superimposed structures and then energetically minimized under additional distance constraints that
30 preserved the consensus hydrogen bonding network between the substrate and underlying enzymatic surface. The binding geometry of the P3' and P4' residues was generated in an extended conformation and minimized with no additional distance restraints.

Table 4. Diffraction data and refinement statistics

Data set (wavelength)	Nat. 1.0Å	Os 1.13987Å	Os 1.139205Å	Os 1.04591	Au
Spacegroup	I222				
	a = 87.154				
Cell axis (a, b, c)	b = 88.031				
	c = 114.609				
Resolution range	20-2.15	20-2.81	20-2.82	20-2.68	20-3.0
Total measurements	96833	71728	80430	79013	11889
Unique reflections	23553	18594	19651	21720	3511
Completeness (last shell)	0.976(0.99)	0.90(0.70)	0.95(0.76)	0.81(0.76)	0.78
Anom. Comp.		0.75	0.84	0.75	
R-sym.	0.070(0.249)	0.055(0.184)	0.063(0.175)	0.056(0.483)	0.053(0.109)
Phas. isom. acnt (cntr)		0.57(0.38)	0.59 (0.39)	0.64(0.52)	0.52
Pow. anom. acnt		0.23	0.31	0.23	
FOM acnt (cntr)	0.51(0.24)				
Protein atoms	2749				
Solvent	467				
Sulphate ions	3				
Chloride ion	1				
Resolution in refinement	10.0-2.15				
Reflections in refinement	23353				
R-factor	0.186				
R-free					
Average B	24.8				
Bond rms deviations	0.0090				
Angle rms deviations	1.62				

Listing of references

1. Allende, L.M., Garcia-Perez, M.A., Moreno, A., Corell, A., Corasol, M., Martinez-Canut, P. and Arnaiz-Villena, A. (2001). Cathepsin C gene: First compound heterozygous patient with Papillon-Lefevre syndrome and novel symptomless mutation. Hum. Mutat. 17, 152-153.
2. Baumann, U., Bauer, M., Letoffe, S., Delepelaire, P., Wandersman, C. (1995). Crystal structure of a complex between *Serratia marcescens* metallo-protease and an inhibitor from *Erwinia chrysanthemi*. J. Mol.Biol. 248, 653-661.
3. Blundell, T.L., Johnson, N.L. (1976) Protein Crystallography, Academic Press.
4. Brünger, A.T., Adams, P.D., Clore, G.M., DeLano, W.L., Gros, P., Grosse-Kunstleve, R.W., Jiang, J.S., Kuszewski, J., Nilges, M., Pannu, N.S., Read, R.J., Rice, L.M., Simonson, T., Warren, G.L. (1998) Acta Crystallogr. D 54, 905-921.
5. Carson, M. (1991). Ribbons 2. J. Appl. Cryst. 24, 283-291.
6. Cigic, B., Dahl, S.W. and Pain, R.H. (2000). The residual pro-part of cathepsin C fulfills the criteria required for an intramolecular chaperone in folding and stabilizing the human proenzyme. Biochemistry 39, 12382-90.
7. Cigic, B., Krizaj I., Kralj, B., Turk, V. and Pain, R.H. (1998). Stoichiometry and heterogeneity of the pro-region chain in tetrameric human cathepsin C. Biochim. Biophys. Acta. 1382, 143-50.
8. Cowtan, K., Main, P. (1998) Acta Crystallogr. D 54, 487-493.
9. Cygler, M., Sivaraman, J., Grochulski, P., Coulombe, R., Storer, A.C. and Mort, J. (1996). Structure of rat procathepsin B: model for inhibition of cysteine protease activity by the proregion. Structure 4, 405-416.

10. Dahl, S.W., Halkier T., Lauritzen, C., Dolenc, I., Pedersen, J., Turk, V. and Turk, B. (2001). Human recombinant pro-dipeptidyl peptidase I (cathepsin C) can be activated by cathepsins L and S but not by autocatalytic processing. *Biochemistry* 40, 1671-1678.
- 5 11. Darmon, A.J., Nicholson, D.W., Bleackley, R.C. (1995). Activation of the apoptotic protease CPP32 by cytotoxic T-cell-derived granzyme B. *Nature* 377, 446-8.
12. de La Fortelle, E. and Bricogne, G. (1997). *Methods in Enzymology, Macromolecular Crystallography*, 276, 472-494.
- 10 13. Dolenc, I., Turk B., Pungercic, G., Ritonja, A. and Turk, V. (1995). Oligomeric structure and substrate induced inhibition of human cathepsin C. *J. Biol Chem.* 270, 21626-31.
- 15 14. Dolenc, I., Turk, B., Kos, J. and Turk, V. (1996). Interaction of human cathepsin C with chicken cystatin. *FEBS Lett.* 392, 277-80.
15. Doling et al. (1996) *FEBS Lett.* 392, 277-280.
- 20 16. Drenth, J., Kalk, K.H. and Swen, H.M. (1976). Binding chloromethyl ketone substrate analogues to crystalline papain. *Biochemistry* 15, 3731-3738.
17. Engh, R.A. and Huber, R. (1991). Accurate bond and angle parameters for X-ray protein structure refinement. *Acta. Cryst. A* 47, 392-400.
- 25 18. Fruton, J.S. and Mycek, M.J. (1956). Studies of beef spleen cathepsin C. *Arch. Biochem. Biophys.* 65, 11-20.
- 30 19. Garman, E. (1999) *Acta Crystallogr. D* 55, 1641-1653.
20. Groll, M., Ditzel, L., Lowe, J., Stock, D., Bochtler, M., Bartunik, H.D. and Huber, R. (1997). Structure of 20S proteasome from yeast at 2.4 Å resolution. *Nature* 386, 463-71.

21. Gruenwald et al. (1993) Procedures and Methods Manual, 2nd ed., Pharmigen, San Diego, Calif. p.44-49.
22. Gruenwald et al. (1993) Procedures and Methods Manual, 2nd ed., Pharmigen, San Diego, Calif. p. 52-53.
23. Guncar, G., Klemenicic, I., Turk, B., Turk, V., Karaoglanovic-Carmona, A., Juliano, L. and Turk D. (2000). Crystal structure of cathepsin X: a flip-flop of the ring of His23 allows carboxy-monopeptidase and carboxy-dipeptidase activity of the protease. Structure 29, 8:305-313.
24. Guncar, G. et al. (1998). Crystal structure of porcine cathepsin H determined at 2.1Å resolution: location of the mini-chain Crystal structure of porcine cathepsin H determined at 2.1 Å resolution: location of the mini-chain C-terminal carboxyl group defines cathepsin H aminopeptidase function. Structure 6(1):51-61.
25. Gutman, H.R. and Fruton, J. (1948). On the proteolytic enzymes of animal tissues VIII: An Intracellular enzyme related to chymotrypsin. J. Biol. Chem. 174, 851-858.
26. Hart, T.C., Hart, P.S., Bowden, D.W., Michalec, M.D., Callison, S.A., Walker, S.J., Zhang, Y. and Firatli, E. (1999). Mutations of the cathepsin C gene are responsible for Papillon-Lefevre syndrome. J. Med. Genet. 36, 881-887.
27. Hart, T.C., Hart, P.S., Michalec, M.D., Zhang, Y., Firatli, E., Van Dyke, T.E., Stabholz, A., Zlorogorski, A., Shapira, L. and Soskolne, W.A. (2000a). Haim-Munk syndrome and Papillon-Lefevre syndrome are allelic mutations in cathepsin C. J. Med. Genet. 37, 88-94.
28. Hart, T.C., Hart, P.S., Michalec, M.D., Zhang, Y., Marazita, M.L., Cooper, M., Yassin, O.M., Nusier, M. and Walker, S. (2000b). Localisation of a gene for prepubertal periodontitis to chromosome 11q14 and identification of a cathepsin C gene mutation. J. Med. Genet. 37, 95-101.
29. Holm, L. and Sander, C. (1996). Mapping the protein universe. Science 273, 595-602.

30. Hooft, R.W.W. Vriend, G. Sander, C. Abola, E.E. (1996). Errors in protein structures. *Nature* 381, 272-272.
- 5 31. Illy, C., Quraishi, O., Wang, J., Purisima, E., Vernet, T., Mort, J.S. (1997). Role of the occluding loop in cathepsin B activity. *J. Biol. Chem.* 272, 1197-202.
32. Ishidoh et al. *J. Biol. Chem.* (1991) 266, 16312-16317.
- 10 33. Joshua-Tor, L., Xu H.E., Johnston, S.A. and Rees, D.C. (1995). Crystal structure of a conserved protease that binds DNA: the bleomycin hydrolase, Gal6. *Science* 269, 945-50.
34. Kissinger, C.R., Gehlhaar, D.K. and Fogel, D.B. (1999). Rapid automated
15 molecular replacement by evolutionary search. *Acta Cryst. D Biol. Crystallogr.* 55, 484-491.
35. Knight, S. (1989). "Ribulose 1,5-Bisphosphate Carboxylase/Oxygenase - A Structural Study". Thesis, Swedish University of Agricultural Sciences, Uppsala.
- 20 36. Kumar, S. (1999). Mechanisms mediating caspase activation in cell death. *Cell Death Diff.* 6, 1060-6.
37. Laskowski et al. (1993) *J. Appl. Cryst.* 26, 283-291.
- 25 38. Lauritzen et al. (1998) *Protein Expr. Purif.* 14, 434-442.
39. Lowe, J., Stock, D., Jap, B., Zwickl, P., Baumeister, W. and Huber, R. (1995). Crystal structure of the 20S proteasome from the archaeon *T. acidophilum* at 3.4 Å resolution. *Science* 268, 533-9.
- 30 40. Luthy et al. (1992) *Nature* 356, 83-85.
41. Lynch, G.W. and Pfueller, S.L. (1988). Thrombin-independent activation of platelet factor XIII by endogenous platelet acid protease. *Thromb. Haemost.* 59, 372-7.
- 35

42. McDonald, J.K., Reilly, T.J., Zeitman, B.B. and Ellis, S. (1966). Cathepsin C: a chloride-requiring enzyme. *Biochem. Biophys. Res. Commun.* 8, 771-775.
- 5 43. McGrath, M.E. (1999). The Lysosomal Cysteine Proteases. *Annu. Rev. Biophys. Biomol. Struct.* 28, 1818-204.
44. McGuire, M.J., Lipsky, P.E. and Thiele, D.L. (1992). Purification and characterization of dipeptidyl peptidase I from human spleen. *Arch. Biochem. Biophys.* 295, 280-8.
- 10
45. Merritt, E.A. and Bacon, D.J. (1997). Raster3D: Photorealistic Molecular Graphics. *Methods in Enzymology*, 277, 505-524.
- 15 46. Mettrione, R.M. et al (1966). *Biochemistry* 5, 1597-1604.
47. McDonnald J. K. et al (1969). *J. Biol. Chem.* 244, 2693-2709.
48. Muno, D., Ishidoh, K., Ueno, T. and Kominami, E. (1993). Processing and transport of the precursor of cathepsin C during its transfer into lysosomes. *Arch. Biochem. Biophys.* 306, 103-10.
- 20
49. Musil, D. Zucic, D., Turk, D., Engh, R. A., Mayr, I., Huber, R., Popovic, T., Turk, V., Towatari, T., Katunuma, N., Bode, W. (1991). The refined 2.15Å X-ray crystal structure of human liver cathepsin B: the structural basis for its specificity. *EMBO Journal*, 10, 2321-2330.
- 25
50. Nauland, U. and Rijken, D.C. (1994). Activation of thrombin-inactivated single-chain urokinase-type plasminogen activator by dipeptidyl peptidase I (cathepsin C). *Eur. J. Biochem.* 223, 497-501.
- 30
51. Navaza, J. (1993) *Acta Crystallogr. D* 49, 588-591.
52. Navaza, J. (1994) *Acta Crystallogr. A* 50, 157-163.

53. Navaza, J., Vernoslova, E. (1995) *Acta Crystallogr. A* 51, 445-449.
54. Nelson, R.M. and Long, G.L. (1989) A general method of site-specific mutagenesis using a modification of the *Thermus aquaticus* polymerase chain reaction. *Anal. Biochem.* 180, 147-51.
55. Neurath, H. (1984). Evolution of proteolytic enzymes. *Science* 224, 350-357.
56. Nicholls, A., Sharp, K.A. and Honig, B. (1991). Protein folding and association: insights from the interfacial and thermodynamic properties of hydrocarbons. *Proteins* 11, 281-376.
57. Nuckolls, G.H. and Slavkin, H.C. (1999). Paths of glorious proteases. *Nat. Genet.* 23, 378-80.
58. Otwinowski, Z. and Minor, V. (1997). Processing of X-ray diffraction data collection in oscillation mode. *Methods in Enzymology, Macromolecular Crystallography*, 276, 307-326.
59. Paris, A., Strukelj, B., Pungercar, J., Renko, M., Dolenc, I. and Turk, V. (1995). Molecular cloning and sequence analysis of human preprocathepsin C. *FEBS Lett.* 369, 326-30.
60. Pereira, P.J., Bergner A., Macedo-Ribeiro, S., Huber, R., Matschiner, G., Fritz, H., Sommerhoff C.P. and Bode W. (1998). Human beta-tryptase is a ring-like tetramer with active sites facing a central pore. *Nature* 392, 306-11.
61. Pham, C.T. and Ley, T.J. (1999). Dipeptidyl peptidase I is required for the processing and activation of granzymes A and B in vivo. *Proc. Natl. Acad. Sci. USA* 96, 8627-32.
62. Planta, R.J., Gorter, J. and Gruber, M. (1964). The catalytic properties of cathepsin C. *Biochim. Biophys. Acta* 89, 511-519.

63. Podack, E.R. (1999). How to induce involuntary suicide: The need for dipeptidyl peptidase I. *Proc. Natl. Acad. Sci. USA* 96, 8312-8314.
64. Podobnik, M., Kuhelj, R., Turk, V. and Turk, D. (1997). Crystal structure of the Wild-type Human Procathepsin B at 2.5 Å Resolution Reveals the Native Active Site of a Papain-like Cysteine Protease Zymogen. *J. Mol. Biol.* 271, 774-788.
65. Rodriguez et al. (1998).
66. Rowan, A.D., Mason, P., Mach L. and Mort, J.S. (1992). Rat procathepsin B. Proteolytic processing to the mature form in vitro. *J. Biol. Chem.* 267, 15993-9.
67. Shresta, S., Graubert, T.A., Thomas, D.A., Raptis, S.Z. and Ley T.J. (1999). Granzyme A initiates an alternative pathway for granule-mediated apoptosis. *Immunity* 10, 595-605.
68. Shresta, S., Pham, C.T., Thomas, D.A., Graubert, T.A. and Ley T.J. (1998). How do cytotoxic lymphocytes kill their targets. *Curr. Opin. Immunol.* 10, 581-7.
69. Thompson et al. (1994) *Nucleic Acids Res.* 22, 4673-4680.
70. Toomes, C., James, J., Wood, A.J., Wu, C.L., McCormick, D., Lench, N., Hewitt, C., Moynihan, L., Roberts, E., Woods, C.G., Markham, A., Wong, M., Widmer, R., Ghaffar, K.A., Pemberton, M., Hussein, I.R., Temtamy, S.A., Davies, R., Read, A.P., Sloan, P, Dixon, M.J. and Thakker NS. (1999). Loss-of-function mutations in the cathepsin C gene result in periodontal disease and palmoplantar keratosis. *Nat. Genet.* 23, 421-4.
71. Travis, J. (1988). Structure, function, and control of neutrophil proteinases. *Am. J. Med.* 84, 37-42.
72. Turk D.: Proceedings from the 1996 meeting of the International Union of Crystallography Macromolecular Macromolecular Computing School, eds P.E. Bourne & K. Watenpaugh.

73. Turk, B. Dolenc, I. and Turk, V. (1998b). 214 Dipeptidyl-peptidase I. Handbook of proteolytic enzymes. (Barrett, A.J., Rawlings, N.D., Woessner, J.F. Jr., eds.) Academic Press Ltd., London, 631-634.
- 5 74. Turk, B., Turk, D. and Turk, V. (2000). Lysosomal cysteine proteases: more than scavengers. *Biochim. Biophys. Acta.* 1477, 98-111.
75. Turk, D. (1992). Weiterentwicklung eines Programms für Molekulgraphik und Elektrondichte-Manipulation und seine Anwendung auf verschiedene Protein-
10 Strukturaufklarungen. Ph. Thesis, Technische Universität, München.
76. Turk, D., Guncar, G., Podobnik, M., and Turk, B. (1998d). Revised definition of substrate binding sites of papain-like cysteine proteases. *Biol. Chem.* 379, 137-147.
- 15 77. Turk, D., Podobnik, M., Kuhelj, R. Dolinar, M. and Turk, V. (1996). Crystal structures of human procathepsin B at 3.2 and 3.3 Å resolution reveal an interaction motif between a papain like cysteine protease and its propeptide. *FEBS Lett.* 384, 211-214.
- 20 78. Turk, D., Podobnik, M., Popovic, T., Katunuma, N., Bode, W., Huber, R. and Turk, V. (1995). Crystal Structure of Cathepsin B inhibited with CA030 at 2 Å Resolution: A basis for the Design of Specific Epoxysuccinyl Inhibitors. *Biochemistry* 34, 4791-4797.
- 25 79. Wolters, P.J., Laig-Webster, M. and Caughey, G.H. (2000). Dipeptidyl peptidase I cleaves matrix-associated proteins and is expressed mainly by mast cells in normal dog airways. *Am. J. Respir. Cell Mol. Biol.* 22, 183-90.
- 30 80. Wolters, P.J., Pham, C.T.N., Mullenburg, D.J., Ley, T.J. and Caughey, G.H. (2001). Dipeptidyl Peptidase I is Essential for Activation of Mast Cell Chymases, but not Trypsases, in Mice. *J. Biol. Chem.*, in press.

Claims

1. A crystallisable composition comprising a substantially pure protein with at least 37% amino acid sequence identity to the amino acid sequence of rat DPPI protein as shown in SEQ.ID.NO.1.
5
2. A crystallised molecule or molecular complex comprising a rat DPPI protein with the amino acid sequence as shown in SEQ.ID.NO.1.
3. A crystallised molecule or molecular complex comprising a protein with at least 37% amino acid sequence identity to the amino acid sequence of rat DPPI protein as shown in SEQ.ID.NO.1.
10
4. A crystallised molecule or molecular complex according to claim 3 comprising a protein with at least 75% amino acid sequence identity to the amino acid sequence of rat DPPI protein.
15
5. A crystallised molecule or molecular complex according to claims 3 or 4, comprising a protein, characterised by a space group $P6_422$ and unit cell dimensions $a = 166.24 \text{ \AA}$, $b = 166.24 \text{ \AA}$, $c = 80.48 \text{ \AA}$ with $\alpha = \beta = 90^\circ$ and $\gamma = 120^\circ$.
20
6. A crystallised molecule or molecular complex according to any of claims 3-5, comprising all or any parts of a binding pocket defined by a negative charge in the active site cleft of a cysteine peptidase by the side chain of the N-terminal residue of a residual pro-part.
25
7. A crystallised molecule or molecular complex according to claim 6, wherein the free amino group of a conserved Asp1 is held in position by a hydrogen bond to the backbone carbonyl oxygen atom of Asp274.
8. A crystallised molecule or molecular complex according to claim 7, further characterised by the delocalised negative charge that said residue carries under physiological conditions on its OD1 and OD2 oxygen atoms which are localised about 7-9 Å from the sulphur atom of the catalytic Cys233 residue.
30

9. A crystallised molecule or molecular complex according to any of claims 3-8 wherein the position of a N-terminal Asp1 residue is fixed by a hydrogen bond between the free amino group of this residue (hydrogen bond donor) and the backbone carbonyl oxygen of Asp274 (hydrogen bond acceptor).
- 5
10. A crystallised molecule or molecular complex according to any of claims 3-9, in which said protein is a DPPI or DPPI-like protein.
11. A crystallised molecule or molecular complex according to any of claims 3-10, in
- 10 which said molecule is mutated prior to being crystallised.
12. A crystallised molecule or molecular complex according to any of claims 3-11, in which said molecule is chemically modified.
- 15 13. A crystallised molecule or molecular complex according to any of claims 3-11, in which said molecule is enzymatically modified.
14. A crystallised molecular complex according to any of claims 3-13, which is in a covalent or non-covalent association with at least one other molecule or molecular
- 20 complex.
15. A crystallised molecular complex according to any of claims 2-14, which is complexed with a co-factor.
- 25 16. A crystallised molecular complex according to any of claims 2-15, which is complexed with a halide.
17. A crystallised molecular complex according to claim 16, which is complexed with a chloride.
- 30
18. A heavy atom derivative of a crystallised molecule or molecular complex according to any of claims 2-17.
19. The crystal structure of a protein with at least 37% amino acid sequence identity to the
- 35 amino acid sequence of rat DPPI protein as shown in SEQ.ID.NO.1.

20. The crystal structure of a protein with at least 75% amino acid sequence identity to the amino acid sequence of rat DPPI protein as shown in SEQ.ID.NO.1.

5 21. The crystal structure of a protein with an amino acid sequence as shown in SEQ.ID.NO.1.

22. The crystal structure of a protein for which the structural co-ordinates of the back bone nitrogen, alpha-carbon and carbonyl carbon atoms of said protein have a root-mean-
10 square deviation from the structural co-ordinates of the equivalent back bone atoms of rat DPPI (as defined in Table 2) of less than 2 Å following structural alignment of equivalent back bone atoms.

23. The crystal structure of a protein according to any of claims 19-22, in which said
15 protein has been mutated prior to being crystallised.

24. The crystal structure of a protein according to any of claims 19-23, in which said protein is chemically modified.

20 25. The crystal structure of a protein according to any of claims 19-23, in which said protein is enzymatically modified.

26. The crystal structure of a protein according to any of claims 19-25, in which said protein is in a covalent or non-covalent association with at least one other atom, molecule,
25 or molecular complex.

27. The crystal structure of a protein according to any of claims 19-26, in which said protein is complexed with a co-factor.

30 28. The crystal structure of a protein according to any of claims 19-27, in which said protein is complexed with a halide.

29. The crystal structure of a protein according to claim 28, in which said protein is complexed with chloride.

30. A crystal structure of a heavy atom derivative of a protein according to any of claims 19-29.

31. The structural co-ordinates of a protein with at least 37% amino acid sequence identity
5 to the amino acid sequence of rat DPPI protein as shown in SEQ.ID.NO.1, that has been found by homology modelling characterised by using any structure co-ordinates of a crystal structure according to any of claims 19-30.

32. A method for producing a crystallised molecule or molecular complex according to any
10 of claims 2-19, characterised by obtaining a sufficient amount of sufficiently pure protein characterised by employing a baculovirus/insect cell system.

33. A method for producing a crystallised molecule or molecular complex according to claim 29, further characterised by using 12mg/ml protein in a reservoir solution containing
15 1.4 M $(\text{NH}_4)_2\text{SO}_4$, 0.1 M bis-tris propane pH 7.5 and 10 % PEG 8000.

34. A method for determining a crystal structure of a first protein structurally related to a second protein with a known crystal structure or structural co-ordinates according to any of claims 19-31, characterised by applying any structural co-ordinates of said known
20 crystal structure for determining phases of diffraction data, obtained by X-ray analysis of said crystal of said first protein, by the method of molecular replacement analysis.

35. A method for theoretically modelling the structure of a first protein with at least 37% amino acid sequence identity to the amino acid sequence of rat DPPI protein as shown in
25 SEQ.ID.NO.1, characterised by

- a) aligning the sequence of said first protein with the sequence of a second protein with known crystal structure or structural co-ordinates according to any of claims 19-31, and incorporating the first sequence into the structure of the second polypeptide, thereby creating a preliminary structural model of said first protein,
- 30 b) subjecting said preliminary structural model to energy minimisation, resulting in an energy minimised model,
- c) remodelling the regions of said energy minimised model where stereochemistry restraints are violated, and
- d) obtaining structure co-ordinates of the final model.

36. A method for selecting, testing and/or rationally or semi-rationally designing a chemical compound which binds covalently or non-covalently to a protein with at least 37% amino acid sequence identity to the amino acid sequence of rat DPPI protein as shown in SEQ.ID.NO.1, characterised by applying in a computational analysis structure
5 co-ordinates of a crystal structure according to any of claims 19-31 and/or 35..

37. A method for identifying a potential inhibitor of an enzyme with at least 37% amino acid sequence identity to the amino acid sequence of rat DPPI protein as shown in SEQ.ID.NO.1, comprising the following steps:

- a) using the atomic co-ordinates of a crystallised molecule or molecular complex
10 according to any of claims 2-19 to define the catalytic active sites and/or an accessory binding site of said enzyme,
- b) identifying a compound that fits the active site and/or an accessory binding site of a),
- c) obtaining the compound, and
- d) contacting the compound with a DPPI or DPPI-like protein to determine the binding
15 properties and/or effects of said compound on and/or the inhibition of the enzymatic activity of DPPI by said compound.

38. A method for identifying a potential inhibitor according to claim 37, wherein the atomic co-ordinates of said crystallised molecule or molecular complex are obtained
20 by X-ray diffraction studies using a crystallised molecule or molecular complex according to any of claims 2-19.

39. A method for identifying a potential inhibitor of a DPPI or DPPI-like protein comprising the following steps:

- 25 a) using all or some of the atomic co-ordinates of a crystal structure according to claims 19-30 to define the catalytic active sites or accessory binding sites of an enzyme with at least 37% amino acid sequence identity to the amino acid sequence of rat DPPI protein as shown in SEQ.ID.NO.1,
- b) identifying a compound that fits the active site or accessory binding site of a),
- 30 c) obtaining the compound, and
- d) contacting the compound with a DPPI or DPPI-like protein in the presence of a substrate in solution to determine the inhibition of the enzymatic activity by said compound.

40. A method for identifying a potential inhibitor of a DPPI or DPPI-like protein comprising the following steps:

- a) using all or some of the structural co-ordinates of a protein according to claim 31 to define the catalytic active sites or accessory binding sites of an enzyme with at least 37% amino acid sequence identity to the amino acid sequence of rat DPPI protein as shown in SEQ.ID.NO.1,
- b) identifying a compound that fits the active site or accessory binding site of a),
- c) obtaining the compound, and
- d) contacting the compound with a DPPI or DPPI-like protein in the presence of a substrate in solution to determine the inhibition of the enzymatic activity by said compound.

41. A method for designing a potential inhibitor of a DPPI or DPPI-like protein comprising the steps of:

- a) providing a three dimensional model of the receptor site in an enzyme with at least 37% amino acid sequence identity to the amino acid sequence of rat DPPI protein as shown in SEQ.ID.NO.1 and a known inhibitor,
- b) locating the conserved residues in the known inhibitor which constitute the inhibition binding pocket,
- c) designing a new a DPPI or DPPI-like protein inhibitor, which possesses complementary structural features and binding forces to the residues in the known inhibitor's inhibition binding pocket.

42. A method according to claim 41, wherein the three-dimensional model of a protein with at least 37% amino acid sequence identity to the amino acid sequence of rat DPPI protein as shown in SEQ.ID.NO.1 in step a) is the model set out in figure 3.

43. A method according to claims 41 or 42 wherein said three-dimensional model is constructed on structural co-ordinates obtained from a crystal structure according to claims 19-30 or on structural co-ordinates of a protein according to claim 31.

44. A method according to any of claim 36-43, wherein said identified compound and/or potential inhibitor is designed *de novo*.

45. A method according to any of claim 36-43, wherein said identified compound and/or potential inhibitor is designed from a known inhibitor or from a fragment capable of associating with a DPPI or DPPI-like protein.

5 46. A method according to claim 45, wherein said known inhibitor is selected from the group consisting of dipeptide halomethyl ketone inhibitors, dipeptide diazomethyl ketone inhibitors, dipeptide dimethylsulphonium salt inhibitors, dipeptide nitril inhibitors, dipeptide alpha-keto carboxylic acid inhibitors, dipeptide alpha-keto ester inhibitors, dipeptide alpha-keto amide inhibitors, dipeptide alpha-diketone inhibitors, dipeptide acyloxymethyl ketone
10 inhibitors, dipeptide aldehyde inhibitors and dipeptide epoxysuccinyl inhibitors.

47. A method according to any of claims 36-46, wherein said step of employing said structural co-ordinates to design, or select said potential inhibitor comprises the steps of:
a) identifying chemical entities or fragments capable of associating with a protein with at
15 least 37% amino acid sequence identity to the amino acid sequence of rat DPPI protein as shown in SEQ.ID.NO.1, and
b) assembling the identified chemical entities or fragments into a single molecule to provide the structure of said potential inhibitor.

20 48. A chemical compound and/or potential inhibitor identified by a method according to any of claims 36-47.

49. A chemical compound and/or potential inhibitor identifiable by a method according to any of claims 36-47.

25

50. A potential inhibitor, which possesses a positive charge that forms a salt bridge to the negative charge on the side chain of a conserved Asp1 and/or Asp274 of a protein with at least 37% amino acid sequence identity to the amino acid sequence of rat DPPI protein as shown in SEQ.ID.NO.1

30

51. Use of any of the atomic co-ordinates according to claims 31 and/or 35 and/or the atomic co-ordinates of a crystal structure according to claims 19-30 for the identification of a potential inhibitor of a DPPI or DPPI-like protein.

52. A method for selecting, testing and/or rationally or semi-rationally designing a modified protein with at least 37% amino acid sequence identity to the amino acid sequence of rat DPPI protein as shown in SEQ.ID.NO.1, characterised by applying any of the atomic co-ordinates according to claims 31 and/or 35, and/or the atomic co-ordinates of a crystal
5 structure according to any of the claims 19-30.

53. Use of any of the atomic co-ordinates according to claims 31 and/or 35 and/or the atomic co-ordinates of a crystal structure according to any of claims 19-30 for the modification of a protein with at least 37% amino acid sequence identity to the amino acid
10 sequence of rat DPPI protein as shown in SEQ.ID.NO.1, such that it can catalyse the cleavage of a natural, unnatural or synthetic substrate more efficiently than the wild type enzyme.

54. Use according to claim 53, wherein such substrates are selected from the group
15 consisting of dipeptide amides and esters, dipeptides C-terminally linked to a chromogenic or fluorogenic group, polyhistidine purification tags and granule serine proteases with a natural dipeptide propeptide extension.

55. A modified protein obtained by a method or use according to any of claims 52-54.
20

56. A modified protein obtainable by a method or use according to any of claims 52-54.

57. Use of a chemical compound, potential inhibitor, or modified protein according to any of claims 48-50, 55 or 56, respectively, for interfering with a DPPI catalysed activation of a
25 mammalian tryptase.

58. Use of a chemical compound, potential inhibitor, or modified protein according to any of claims 48-50, 55 or 56, respectively, for interfering with a DPPI catalysed activation of a human tryptase.
30

59. Use of a chemical compound, potential inhibitor or modified protein according to any of claims 48-50, 55 or 56, respectively, for interfering with a DPPI catalysed activation of a mammalian chymase.

60. Use of a chemical compound, potential inhibitor, or modified protein according to any of claims 48-50, 55 or 56, respectively, for interfering with a DPPI catalysed activation of a human chymase.

- 5 61. Use according to any of claims 57-60, for treating a mast cell related disease by interfering with a DPPI catalysed activation of mast cell tryptase and/or mast cell chymase.

ulcerative colitis and Crohn's disease and asthma psoriasis

10

62. Use of a chemical compound, potential inhibitor, or modified protein according to any of claims 48-50, 55 or 56, respectively, for treating a disease related to excessive and/or reduced apoptosis.

- 15 63. Use of a chemical compound, potential inhibitor, or modified protein according to any of claims 48-50, 55 or 56, respectively, for treating a granzyme related disease by interfering with the DPPI catalysed activation of a granzyme.

64. Use according to claim 62 or 63, by interfering with a DPPI catalysed activation of a
20 granzyme selected from the group consisting of granzyme A, B, H, K or M.

65. Use according to any of claims 62-64, wherein said disease is selected from the group consisting of cancer.

- 25 66. Use of a chemical compound, potential inhibitor, or modified protein according to any of claims 48-50, 55 or 56, respectively, for treating a disease related to excessive and/or reduced proteolysis.

67. Use according to claim 66, characterised by interfering with a DPPI catalysed
30 activation of cathepsin G and/or leukocyte elastase.

68. Use according to claim 67, wherein said disease is selected from the group consisting of lung emphysema, cystic fibrosis, adult respiratory distress syndrome, rheumatoid arthritis and infectious diseases.

35

69. Use of a chemical compound, potential inhibitor or modified protein according to any of claims 48-50, 55 or 56, respectively, for manufacturing of a pharmaceutical composition for the treatment of a disease related to dys-functional or anomalous DPPI activation of one or more human serine proteases.

5

70. Use according to claim 69, wherein said human serine protease is selected from the group consisting of tryptase, chymase, granzymes A, B, H, K and M, cathepsin G and leukocyte elastase.

10 71. Use of a chemical compound, potential inhibitor or modified protein according to any of claims 48-50, 55 or 56, respectively, for the manufacturing of a pharmaceutical composition for the treatment of a mast cell related disease, characterised by dys-functional and/or anomalous DPPI activation of a human tryptase and/or chymase.

15 72. Use of a chemical compound, potential inhibitor or modified protein according to any of claims 48-50, 55 or 56, respectively, for the manufacturing of a pharmaceutical composition for the treatment of a disease related to excessive or reduced granzyme activity resulting from dys-functional or anomalous DPPI activation.

20 73. Use of a chemical compound, potential inhibitor, or modified protein according to any of claims 48-50, 55 or 56, respectively, for the manufacturing of a pharmaceutical composition for the treatment of a disease related to excessive or reduced proteolysis by cathepsin G and/or leukocyte elastase.

25 74. A pharmaceutical composition comprising a chemical compound, potential inhibitor, or modified protein according to any of claims 48-50, 55 or 56, respectively.

1/21

LOCUS NM_017097 1850 bp mRNA ROD 08-JUN-2000
 DEFINITION Rattus norvegicus Cathepsin C (dipeptidyl peptidase I) (Ctsc), mRNA.
 ACCESSION NM_017097
 VERSION NM_017097.1 GI:8393217
 KEYWORDS .
 SOURCE Norway rat.
 ORGANISM Rattus norvegicus
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
 REFERENCE 1 (bases 1 to 1850)
 AUTHORS Ishidoh, K., Munro, D., Sato, N. and Kominami, E.
 TITLE Molecular cloning of cDNA for rat cathepsin C. Cathepsin C, a cysteine proteinase with an extremely long propeptide
 JOURNAL J. Biol. Chem. 266 (25), 16312-16317 (1991)
 MEDLINE 91358405
 COMMENT REFSEQ: The reference sequence was derived from D90404.1.
 PROVISIONAL RefSeq: This is a provisional reference sequence record that has not yet been subject to human review. The final curated reference sequence record may be somewhat different from this one.
 FEATURES
 source Location/Qualifiers
 1..1850
 /organism="Rattus norvegicus"
 /strain="W"
 /db_xref="taxon:10116"
 /clone="lambda C14"
 /dev_stage="kidney"
 gene 1..1850
 /gene="Ctsc"
 /note="CATC"
 /db_xref="LocusID:25423"
 /db_xref="RATMAP:41308"
 sig_peptide 58..141
 CDS 58..1446
 /gene="Ctsc"
 /EC_number="3.4.14.1"
 /codon_start=1
 /product="cathepsin C (dipeptidyl peptidase I)"
 /protein_id="NP_058793.1"
 /db_xref="GI:8393218"
 /translation="MGPWTHSLRAALLLVLLGVCTVSSDTPANCTYPDLLGTWVFQVG
 PRHPRSHINCSVMEPTEEKVVIHLKKLDYAYDEVGNSGYFTLIYNQGFIVLNDYKWF
 AFFKYEVKGSRAISYCHETMTGWVHDVLRNWCACFVGKKMANHSEKVVNVVAHLGGLO
 EKYSERLYSHNNHNFVKAINSVQKSWTATTYEEYEKLSIRDLIRSGHSGRILRPKPAP
 ITDEIQQQILSLPESWDWRNVGINFVSPVRNQESCGSCYSFASLGMLEARIRILTNN
 SQTPIILSPQEVVSCSPYAQGCDDGGFPYLIAGKYAQDFGVVEENCFFYTATDAPCKPKE
 NCLRYYSSEYYYVGGFYGGCNEALMKLELVKHGPMMAFAFEVHDDFLHYHSGIYHHTGL
 SDPFNPFELTNHAVLLVGYGKDPVTGLDYWIVKNSWGSQWGESGYFRIRRGTDCAIE
 SIAMAAIPIPKL"
 mat_peptide 142..1443
 /product="cathepsin C propeptide"
 mat_peptide 745..1443
 /product="cathepsin C mature peptide"
 polyA_signal 1831..1836
 BASE COUNT 500 a 416 c 417 g 517 t
 ORIGIN
 1 gaattccggt tctagttggt gttttctctg ccatctgctc tccgggcgcc gtcaaccatg
 61 ggtccgtgga cccactcctt gcgcgcgcc ctgctgctg tgcttttggg agtctgcacc

Fig. 1

Fig. 1

2/21

121 gtgagctccg acactcctgc caactgcact tacctgacc tgctgggtac ctgggttttc
181 caggtggggc ctagacatcc ccgaagtcac attactgct cggtaatgga accaacagaa
241 gaaaaggtag tgatacacct gaagaagttg gatactgcct atgatgaagt gggcaattct
301 gggatattca ccctcattta caaccaaggc tttgagattg tgttgaatga ctacaagtgg
361 tttgcgtttt tcaagtatga agtcaaaggc agcagagcca tcagttactg ccatgagacc
421 atgacagggt ggggtccatga tgtcctgggc cggaaactggg cttgctttgt tggcaagaag
481 atggcaaadc actctgagaa ggtttatgtg aatgtggcac accttgagg tctccaggaa
541 aaatattctg aaaggctcta cagtcacaac cacaactttg tgaaggccat caattctgtt
601 cagaagtctt ggactgcaac cacctatgaa gaatatgaga aactgagcat acgagatttg
661 ataaggagaa gtggccacag cggaaggatc ctaaggccca aacctgcccc gataactgat
721 gaaatacagc aacaaaatttt aagtttgcca gaatcctggg actggagaaa cgtccgtggc
781 atcaattttg ttagccctgt tcgaaaccaa gaatcctgtg gaagctgcta ctcatttgcc
841 tctctgggta tgctagaagc aagaattcgt atattaacca acaattctca gacccaatc
901 ctgagtcctc aggaggttgt atcttgtagc ccgtatgccc aaggttgtga tgggtggattc
961 ccatacctca ttgcaggaaa gtatgcccaa gattttgggg tggtggaaga aaactgcttt
1021 ccctacacag ccacagatgc tccatgcaaa ccaaaggaaa actgcctccg ttactattct
1081 tctgagtact actatgtggg tggtttctat ggtggctgca atgaagccct gatgaagctt
1141 gagctgggtca aacacggacc catggcagtt gcctttgaag tccacgatga cttcctgcac
1201 taccacagtg ggatctacca ccacactgga ctgagcgacc ctttcaaccc ctttgagctg
1261 accaatcatg ctgttctgct tgtgggctat ggaaaagatc cagtcactgg gttagactac
1321 tggattgtca agaacagctg gggctctcaa tggggtgaga gtggctactt ccggatccgc
1381 agaggaactg atgaatgtgc aattgagagt atagccatgg cagccatacc gattcctaaa
1441 ttgtaggacc tagtcccag tgtcccatc agctttttat tattcacagg gtgatttagt
1501 cacaggctgg agacttttac aaagcaatat cagaagctta ccactaggta cccttaaaga
1561 attttgccct taagtttaaa acaatccttg attttttct ttaatatcc tccctatcaa
1621 tcaccgaact acttttcttt taaagtact tggttaagta atacttttct gaggattggg
1681 tagatattgt caaatatttt tgctggtcac ctaaaatgca gccagatgtt tcattgttaa
1741 aaatctatat aaaagtgcaa gctgcctttt ttaaattaca taaatcccat gaatacatgg
1801 ccaaaaatagt tattttttta agacttttaa ataaatgatt aatcgatgct

Fig. 1 (continued)

Fig. 1 (continued)

3/21

CLUSTAL W (1.81) multiple sequence alignment of known proDPPI sequences,
Aug 2000

Scoring matrix: blosum
Opening gap penalty: 10
End gap penalty: 10
Extending gap penalty: 1.0
Gap separation penalty: 1

Rat	DTPANCTYPDLLGTWVFQVGPRHPRSHINCSVMEPTTEKVVVHLKKLDTAYDEVGNSGYF	60
Human	DTPANCTYLDLLGTWVFQVGSSGSQRDVNCSVMGPQEKVVVYLQKLDTAYDDLGNNGHF	60
Dog	DTPANCTHPELLGTWVFQVGPPAGS-RSVNCSVMGPPEKKVVVHLEKLDAYDNFGNTGHF	59
Bovine	DTPANCTYPDLLGTWVFQVGSSGSQRDVNCSVMGPPEKKVVVHLEKLDAYDDFGNSGHF	60
Mouse	DTPANCTYPDLLGTWVFQVGPRSSRSINCSVMEATEEKVVVHLEKLDAYDELGNNGHF	60
Chicken	-----AQDSLGNFGFF	11
Winter flounder	-----	
Zebrafish	-TPANCTYEDLLGTWIFSVSNVQDKTINCSSSTGQTVSTVTVDLQKLSVAVDDLGHGTGFF	59
S. japonicum	DTPANCSYMDAIGHWIFHVS----RYTKCKTKQLDVSQTFSMNVQYPNIVTDSYGNMGKW	56
S. mansoni	DTPANCTYEDAHGRWKFHIG----DYQSKCPEKLNKQSVVISLPPDIAIDFNGNRHW	56
Rat	TLIYNQGFIEIVLNDYKWFAPFKYEVKGSRAISYCHETMTGWVHDVLGRNWACFVGKKMAN	120
Human	TIIYNQGFIEIVLNDYKWFAPFKYKEEGSKVTTCNETMTGWVHDVLGRNWACFTGKKVGT	120
Dog	TIIYNQGFIEIVLNDYKWFAPFKYKEEGHKVTSYCNEMTGWVHDVLGRNWACFTGTGKMG	119
Bovine	TIIYNQGFIEIVLNDYKWFAPFKYKEEGKVTSYCHETMTGWVHDVLGRNWACFTGKRKTGN	120
Mouse	TLIYNQGFIEIVLNDYKWFAPFKYEVGRHTAISYCHETMTGWVHDVLGRNWACFVGKKVES	120
Chicken	TLIYNQGFIEIVLNDYKWFAPFKYKKEGLNVTSYCNETLPGWVHDVLGHNWACFTGQKISS	71
Winter flounder	-----NSARVINGYKWFAPFKYSEGGPTVTSYCDQTPGWVHDVLGNNWACFVGKKVKP	54
Zebrafish	TLIYNQSFVXVINDYKWFAGFFKYTHHGSQEVSYCDQTLPGXVHDVLSNNXACNTGKKVQT	119
S. japonicum	TLIYNQGFIEITMNRKWLIMFAYGPN--TYTCNKSMPMWTHTDLICQWHCFTATKVN	113
S. mansoni	TLIYNQGFIEVTINHRKWLVI FAYKSNG---EFNCHKSMFMWTHTDLIDSGSVCSGKIGV	113
Rat	HSEKVVYNVAHLGGLQEKYSERLYSHNNFVKAINSVQKSWTATTYEEYEKLSIRDILRR	180
Human	ASENVYVNTAHLKNSQEKYSNRLKYDHNFKAINAIQKSWTATTYMEYETLTLDGMIRR	180
Dog	TSEKAVNTKHIERLQENNSNRLKYNYEFVKAINTIQKSWTATRYIEYETLTLDMMTR	179
Bovine	TSENVNVNTARLAGLEETYSNRLRYNHDFVKAINAIQKSWTAAPYMEYETLTLEKIMIRR	180
Mouse	HIEKVMNNAHLGGLQERYSERLYTHNNFVKAINTVQKSWTATAYKEYEKMSLRDLIRR	180
Chicken	SSSDVHVRQLPLQKPRVGLSSRRFVHNFDFVNAINAHQKSWRATRYEYENFSLEELTRR	131
Winter flounder	VPPRVYKPLFSSR----LLQPKYKNMDFIDSINSVQSSWKAVAYPEHETFTLQELQRR	110
Zebrafish	-----	
S. japonicum	FORMIEYKSPVLQ----LDGNQLYKVDTKFIKAINAKQNSWKATIYPEYSKYTIKEMRRR	169
S. mansoni	DKFHINKLFGSKS----FG-RTLYHINPSFVGKINAHQKSWRGEIYPELSKYTIDELRNR	168
Rat	SG-----HSGRILRPKPAPITDEIQQILSLPESWDWRN--VRGINFVSPVRNQESCGSC	233
Human	SG-----GHSRKIPRPKPAPLTAETIQQKILHLPTSWDWRN--VHGINFVSPVRNQASCGSC	234
Dog	VG-----GRKIPRPKPTPLTAETIHEEISRLPTSWDWRN--VRGTNFVSPVRNQASCGSC	231
Bovine	GG-----GHSRRIPRPKPAPITAEIQQKILHLPTSWDWRN--VHGINFVTPVRNQSGCGSC	234
Mouse	SG-----HSQRIPRPKPAPMTDEIQQILNLPESWDWRN--VQGVNYVSPVRNQESCGSC	233
Chicken	AGG---LYSRT-SRPKPAPLTPPELLKKFRLTXS-WDWRN--VNGVNYVX--RNNPVX-RY	181
Winter flounder	AGG---PASRVPMRVRPMPVRAGVAKMAALPERFDWRN--VGGVNFVSPVRNQASCGSC	165
Zebrafish	-----	
S. japonicum	AGGSRSAFKRQNVQLPKKNLTSAMMLELLALPKFEDWVNRPEGLRSPVTPVRNQKTCGSC	229
S. mansoni	AGGVKSMVTRPSVLN-RKTPSKELISLTGNLPLEFDWTSPPDGSRSPVTPIRNQIGCGSC	227

Fig. 2

Fig. 2

4/21

Rat	YSFASLGMLEARIRILTNNSTPILSPQEVVSCSPYAQGCDDGGFPYLIAGKYAQDFGVVE	293
Human	YSFASMGMLEARIRILTNNSTPILSPQEVVSCSQYAQGCCEGGFPYLIAGKYAQDFGLVE	294
Dog	YAFASAMLEARIRILTNNSTPILSPQEVVSCSQYAQGCCEGGFPYLIAGKYAQDFGLVE	291
Bovine	YSFASMGMLEARIRILTNNSTPILSPQEVVSCSQYAQGCCEGGFPYLIAGKYAQDFGLVE	294
Mouse	YSFASMGMLEARIRILTNNSTPILSPQEVVSCSPYAQGCDDGGFPYLIAGKYAQDFGVVE	293
Chicken	HCSWHAEQILSKTPRAS-----	198
Winter flounder	YSFAAMGDVXGSHFKSSPNNXSAPILQSR-----	194
Zebrafish	-----	
S. japonicum	YAFASAAIEARIRLASRFLQPIILSPQDIIDCSPYSEGCDGGFPYLVAGKHGEDFGFVE	289
S. mansoni	YASPSAAALEARIRLVSNFSEQPIILSPQTVVDCSPYSEGCDGGFPYLIAGKYGEDFGFLPQ	287
Rat	ENCFPYTATDA-PCKPKENCLRYYSSEYYYVGGFYGGCNEALMKLELVKHGPMMAVAFEVH	352
Human	EACFPYTGTDS-PCKMKEDCFRYYSEYHYVGGFYGGCNEALMKLELVHHGPMMAVAFEVY	353
Dog	EACFPYAGSDS-PCKPND-CFRYYSEYHYVGGFYGACNEALMKLELVRHGPMMAVAFEVY	349
Bovine	EDCFPYTGTDS-PCRLKEGCFRYYSEYHYVGGFYGGCNEALMKLELVHQQPMMAVAFEVY	353
Mouse	ESCFPYTAKDS-PCKPRENCLRYSSDYHYVGGFYGGCNEALMKLELVKHGPMMAVAFEVH	352
Chicken	-----	
Winter flounder	-----	
Zebrafish	-----	
S. japonicum	EKCNPYTGKSGTCNKLGLCTRYTTDYHYIGGYYGATNEDLMKLELVKNGPFPVGFVEY	349
S. mansoni	KIVIPYTGEDTGKCTVSKNCTRYTTDYHYIGGYYGATNEKLMQLELISNGPFPVGFVEY	347
Rat	DDFLHYHSGIYHHTGLS---DPFNPFELTNHAVLLVGYGKDPVTGLDYWIVKNSWGSQWG	409
Human	DDFLHYKKGIYHHTGLR---DPFNPFELTNHAVLLVGYGTDSASGMDYWIVKNSWGTGWG	410
Dog	DDFFHYQKGIYHHTGLR---DPFNPFELTNHAVLLVGYGTDSASGMDYWIVKNSWGSRWG	406
Bovine	DDFLHYRKGVYHHTGLR---DPFNPFELTNHAVLLVGYGTDAASGLDYWIVKNSWGTSWG	410
Mouse	DDFLHYHSGIYHHTGLS---DPFNPFELTNHAVLLVGYGRDPVTGIEYWIKNKNSWGSNWG	409
Chicken	-----	
Winter flounder	-----	
Zebrafish	-----	
S. japonicum	GDFLQYKSGVYSHTDIINNHHFNFNPFELTNHAVLLVGYGIDNSSNLPYWKIKNSWGQYWG	409
S. mansoni	EDFQFYKEGIYHHTTVQTDHYNENPFELTNHAVLLVGYGVDKLSGEPYWKVKNKNSWGEVWG	407
Rat	ESGYFRIRRGTDCAIESIAMAAPIPKL	438
Human	ENGYFRIRRGTDCAIESIAVAATPIPKL	439
Dog	EDGYFRIRRGTDCAIESIAVAATPIPKL	435
Bovine	ENGYFRIRRGTDCAIESIALAATPIPKL	439
Mouse	ESGYFRIRRGTDCAIESIAVAAPIPKL	438
Chicken	-----	
Winter flounder	-----	
Zebrafish	-----	
S. japonicum	EEGYFRILRGSDCEGVQSIAIKFDVVL--	436
S. mansoni	EQGYFRILRGTDCEGVESLGVRFDPVL--	434

Fig. 2 (continued)

Fig. 2 (continued)

5/21

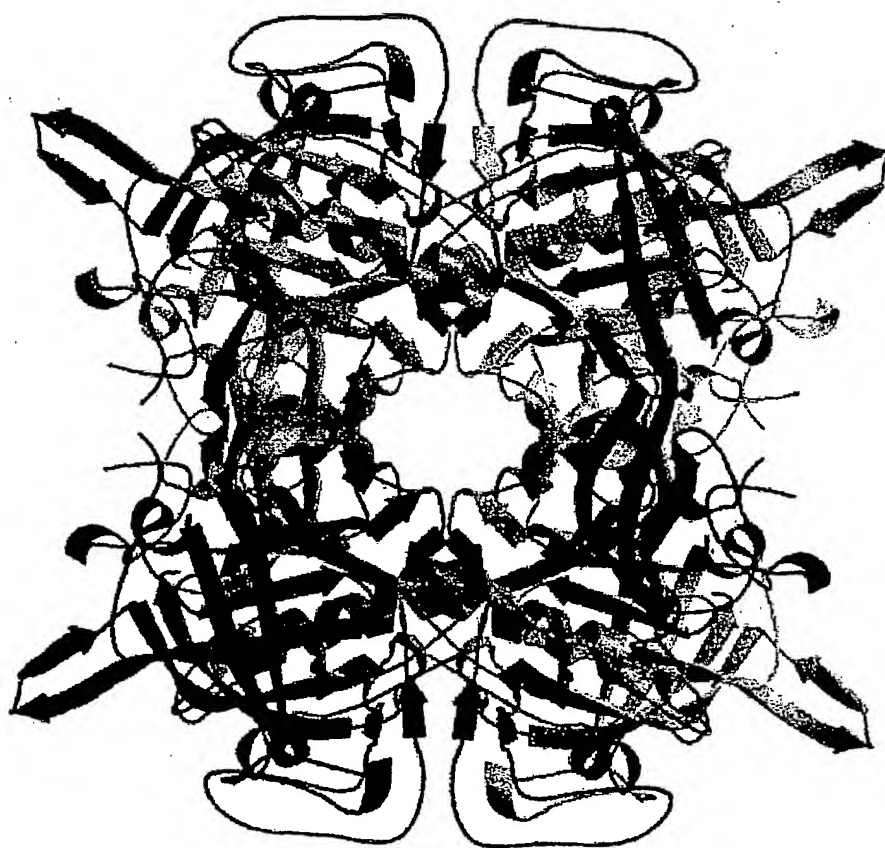


Fig. 3

Fig. 3

6/21

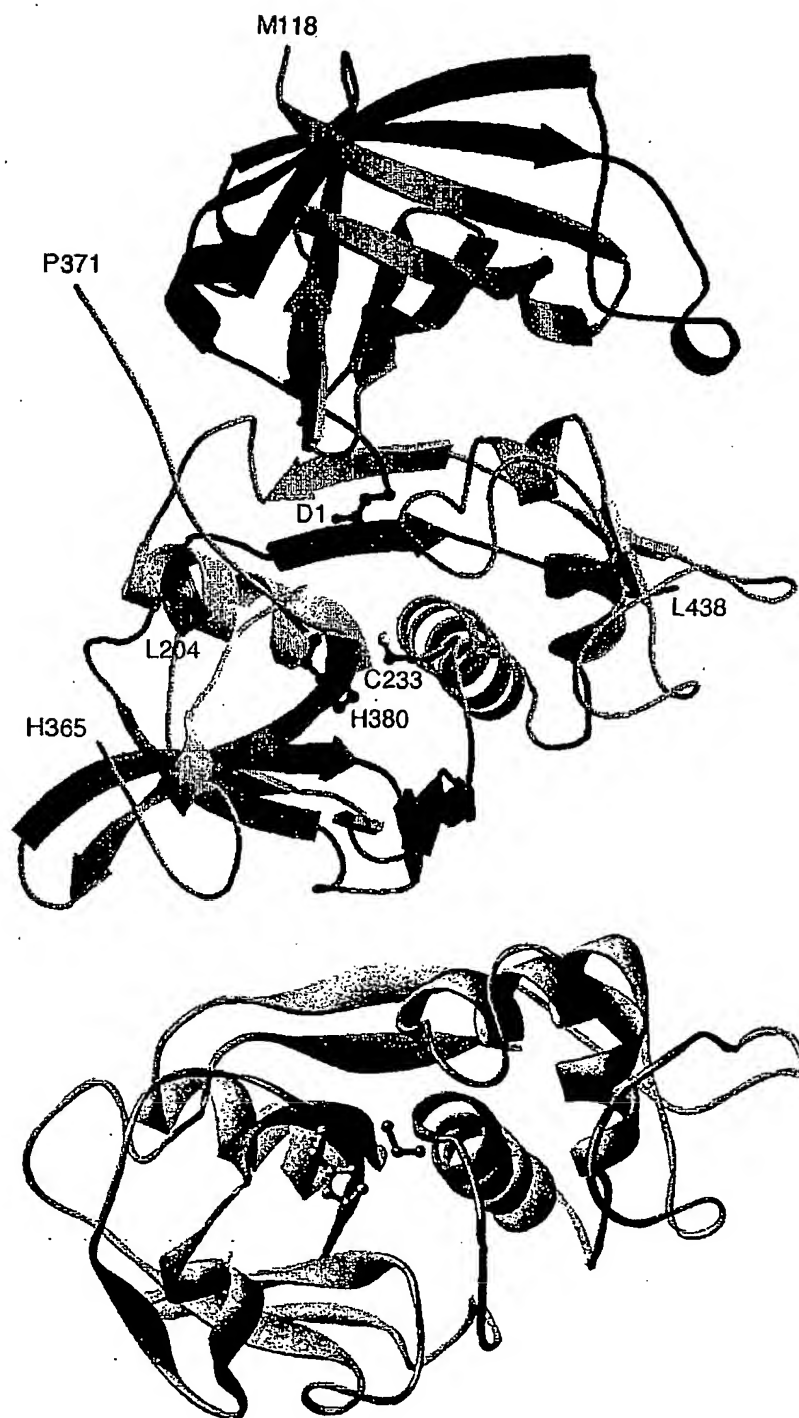


Fig. 4

Fig. 4

7/21

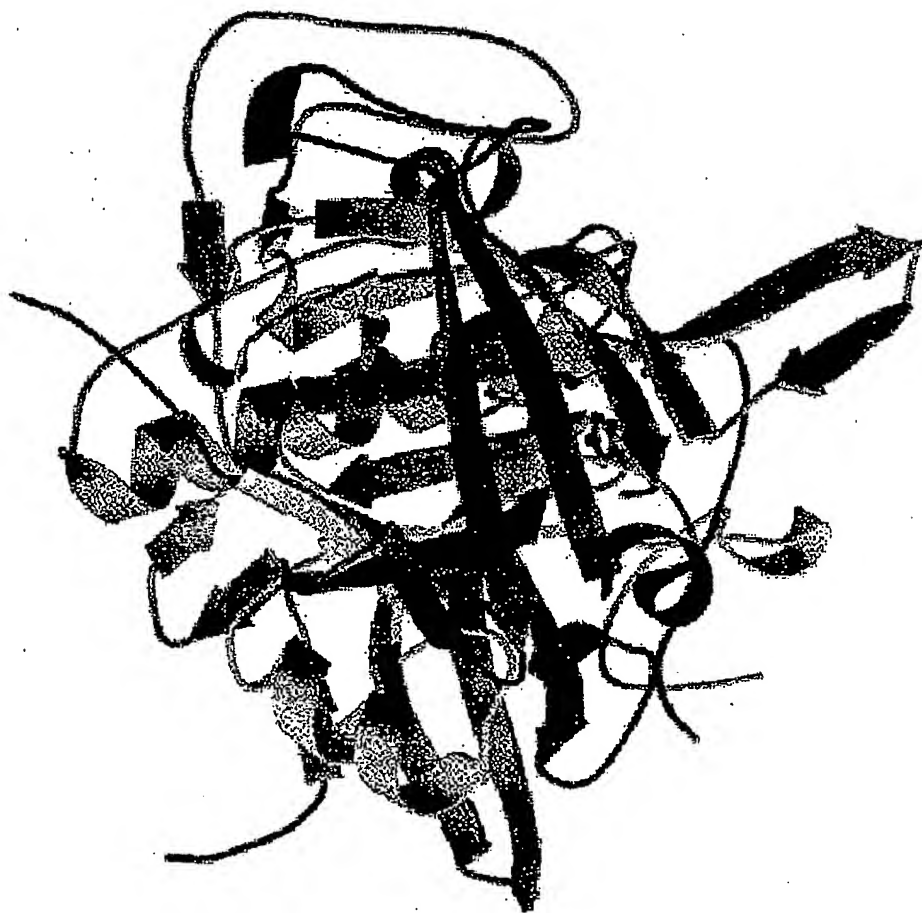


Fig. 5

Fig. 5

8/21

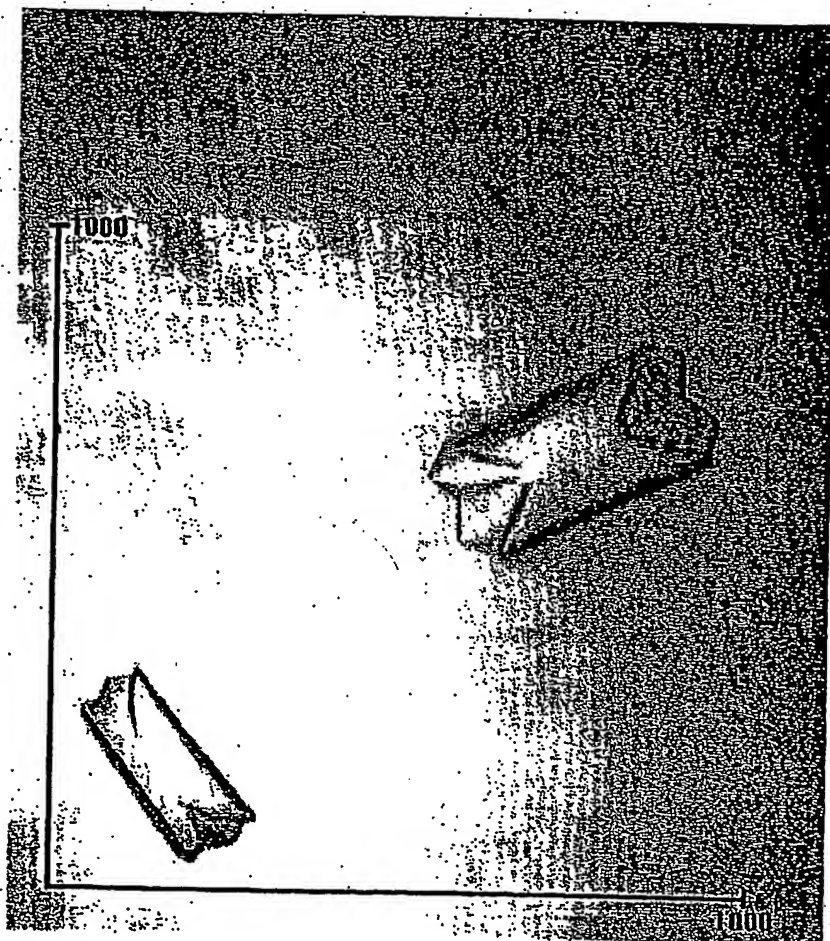


Fig. 6

Fig. 6

9/21

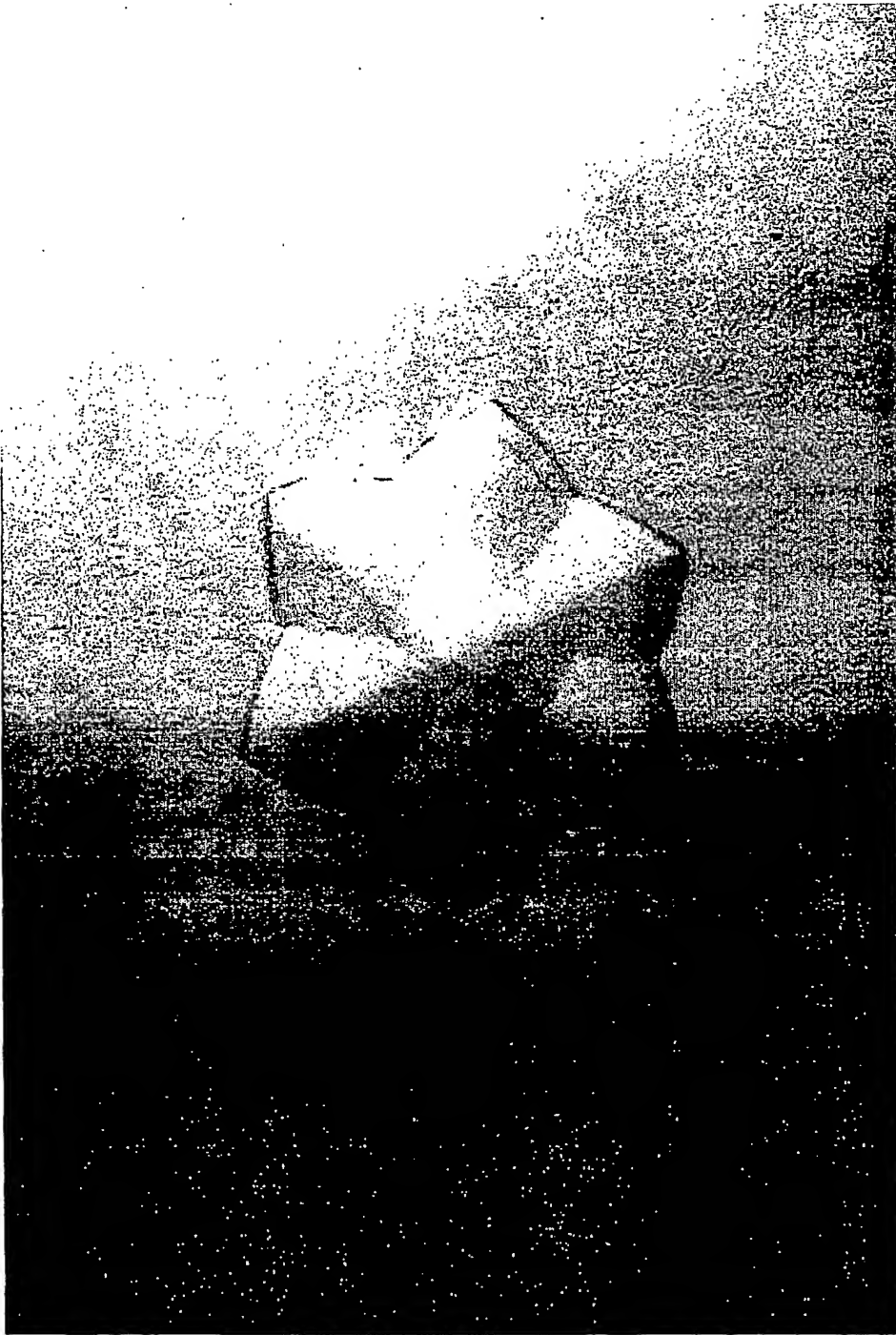


Fig. 7

Fig. 7

10/21

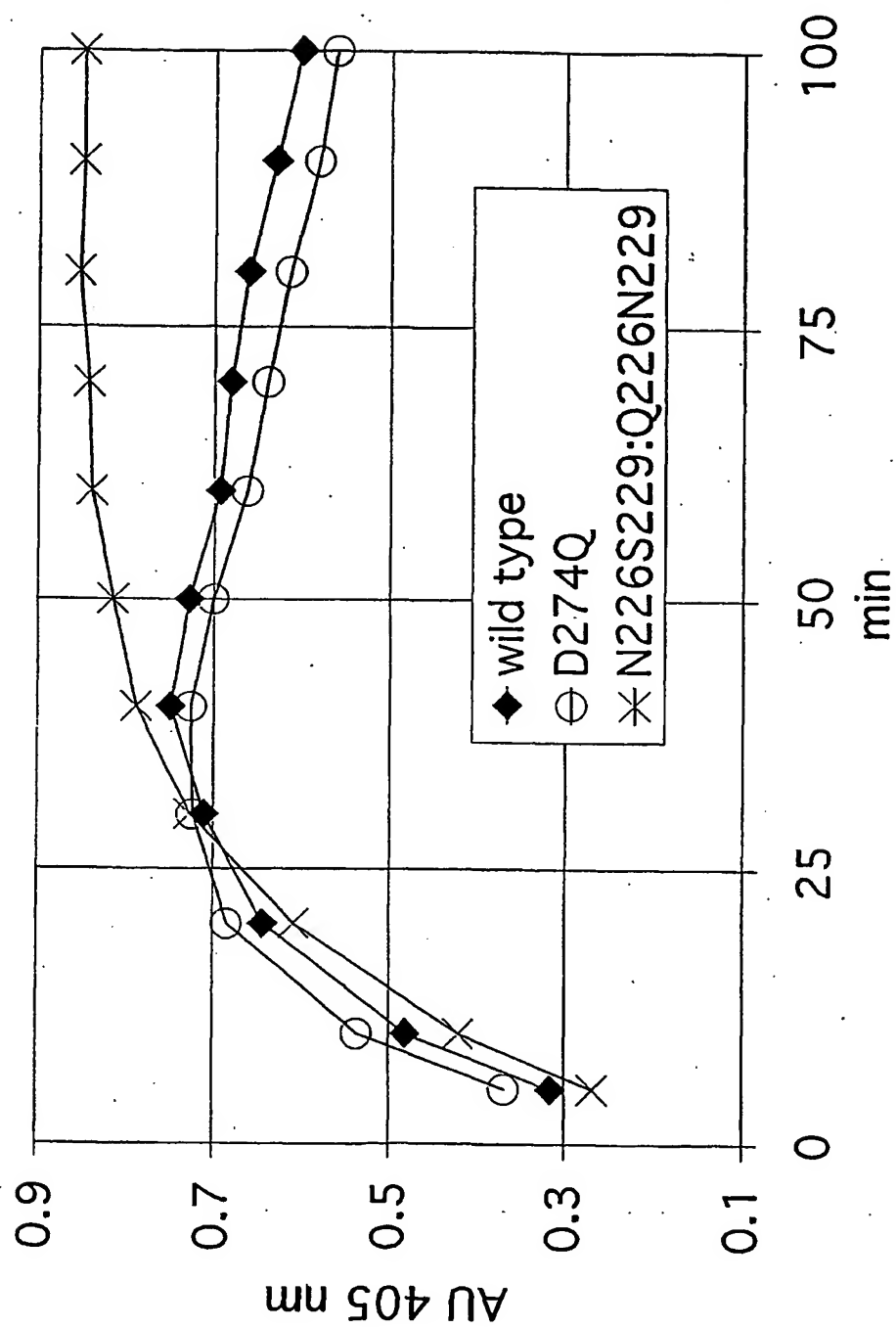


Fig. 8

Fig. 8

11/21

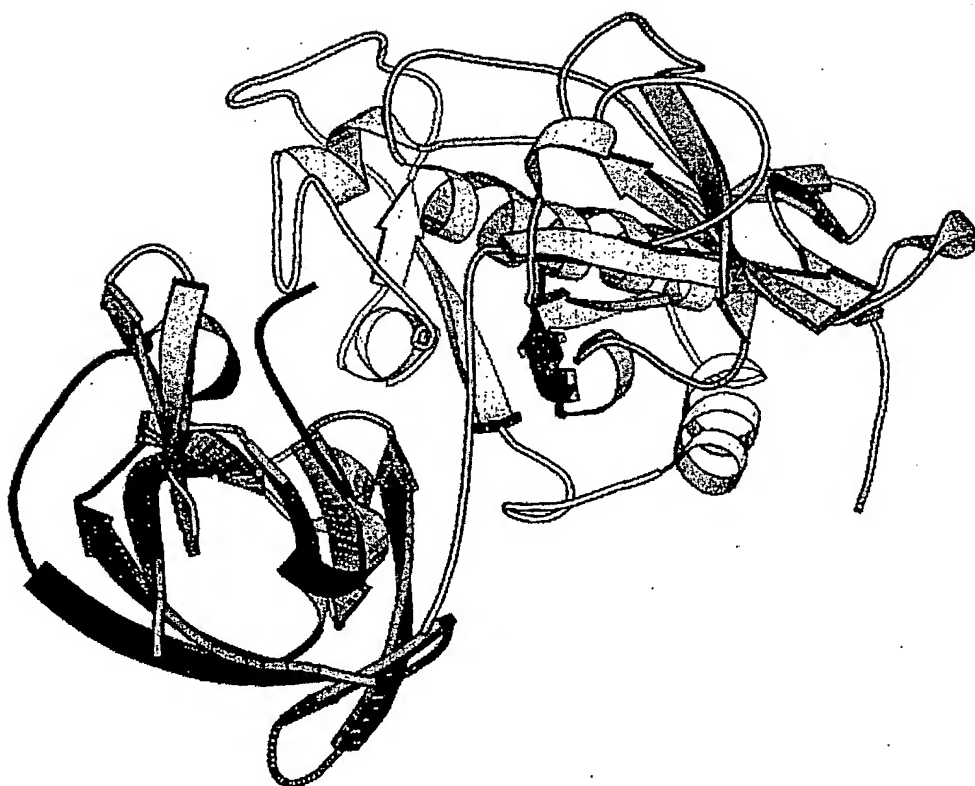


Fig. 9

Fig. 9

12/21

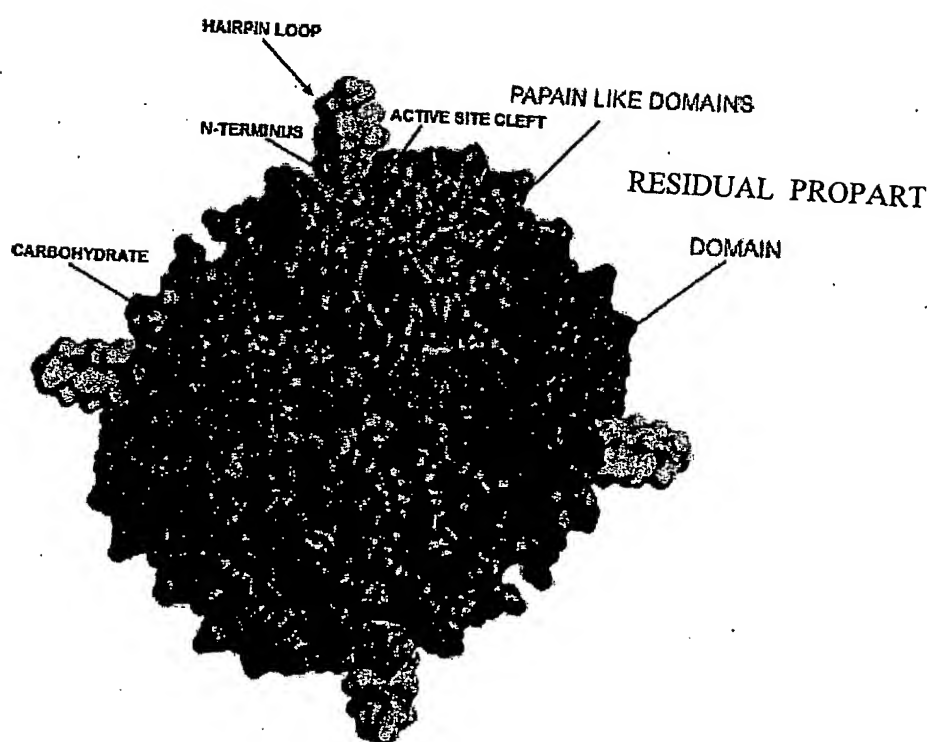


Fig. 10A

Fig. 10A

13/21

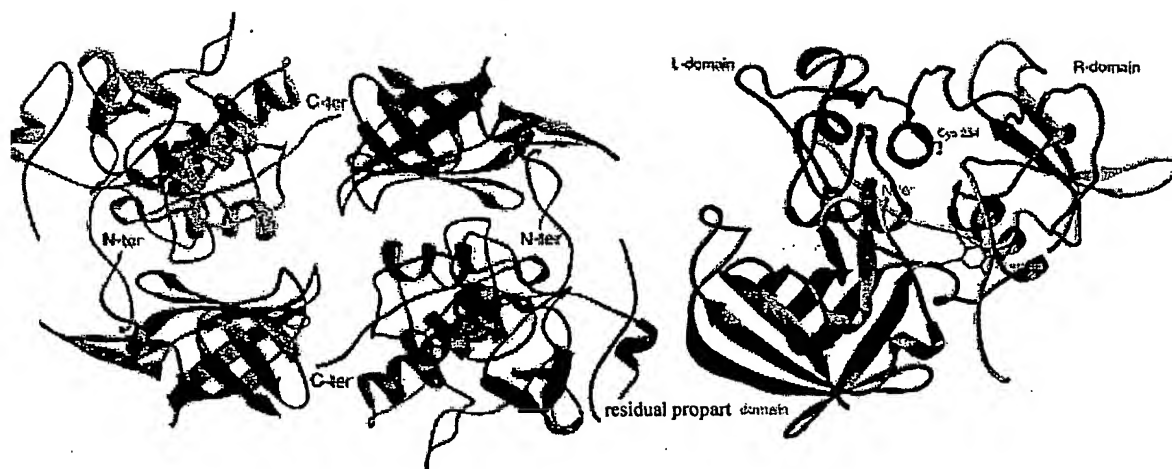


Fig. 10B

Fig. 10B

14/21

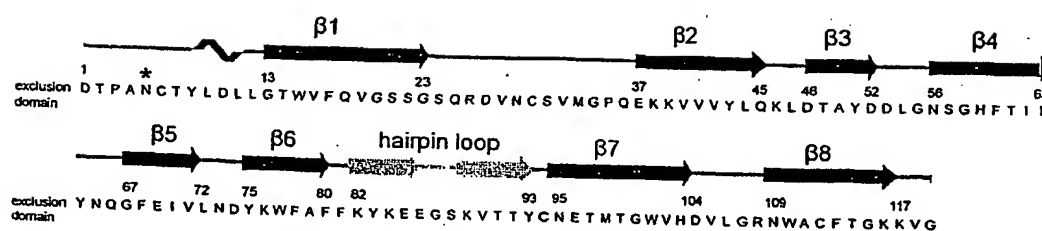


Fig. 10C

Fig. 10C

15/21



Fig. 11A

Fig. 11A

16/21

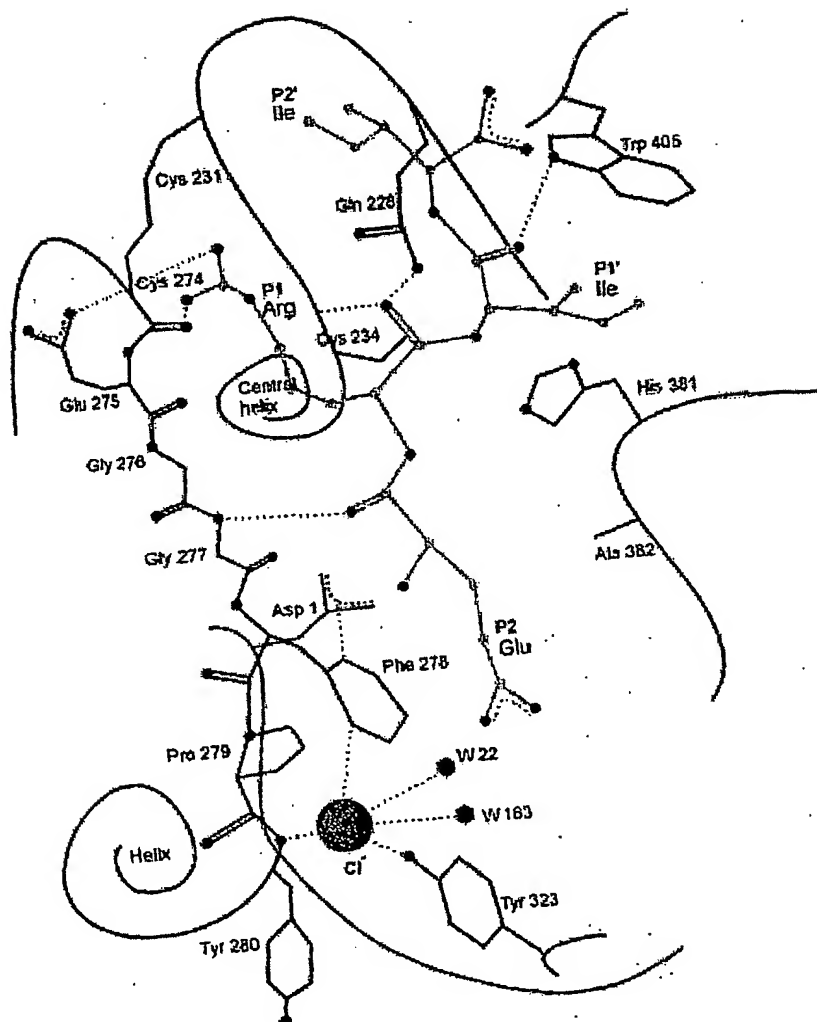


Fig. 11B

Fig. 11B

17/21

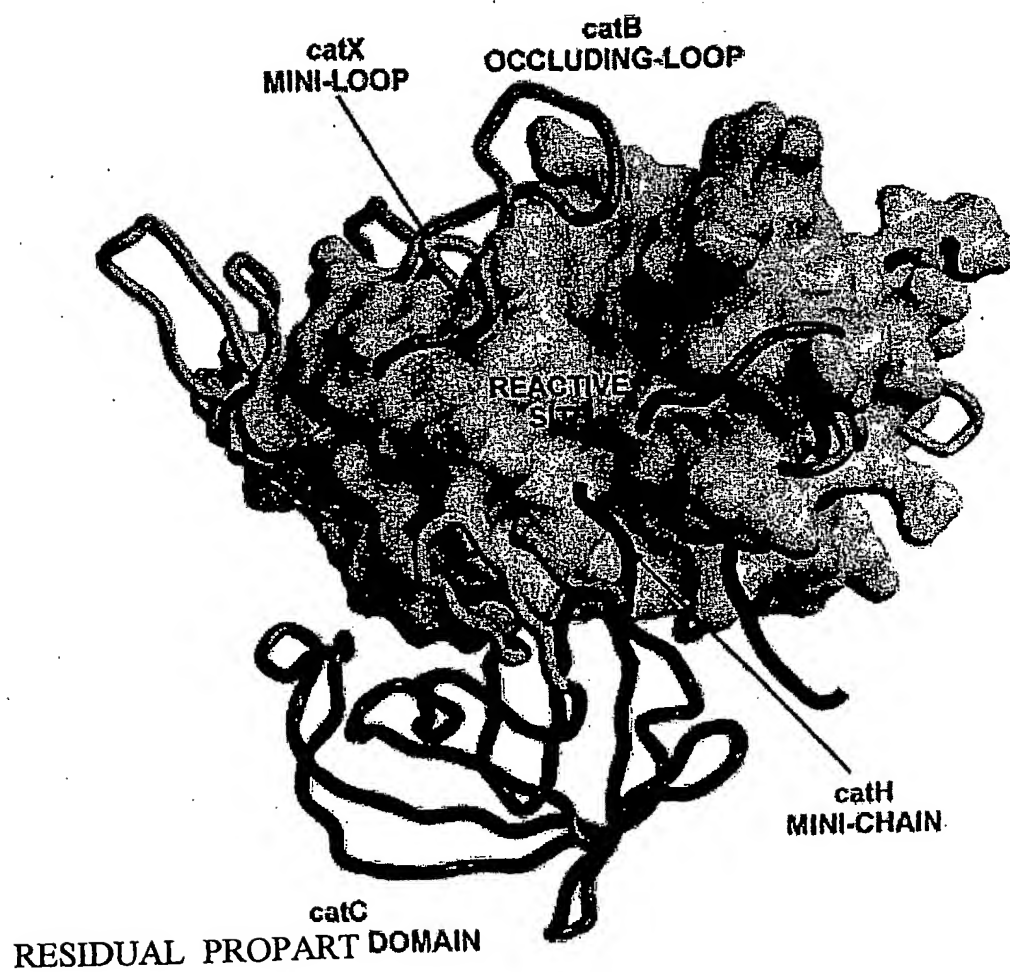


Fig. 12

Fig. 12

18/21

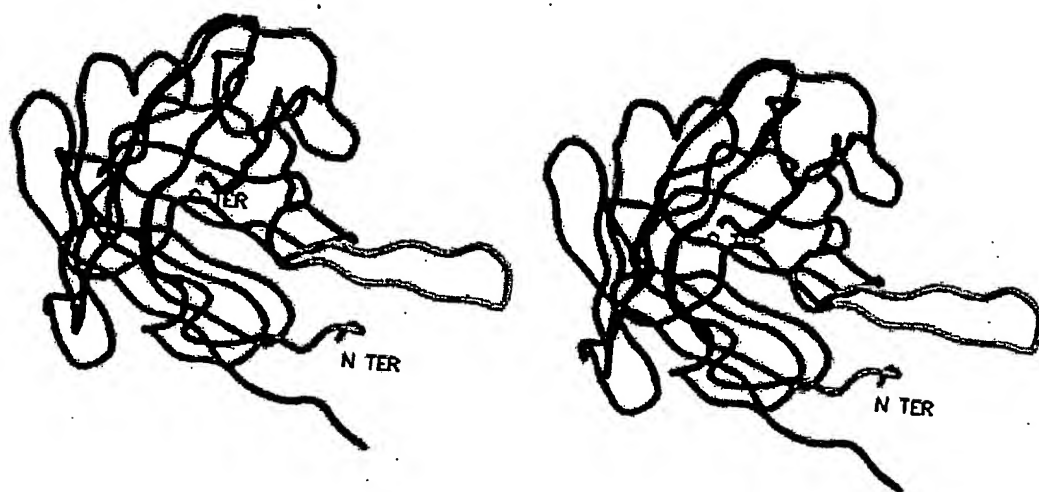


Fig. 13

Fig. 13

19/21

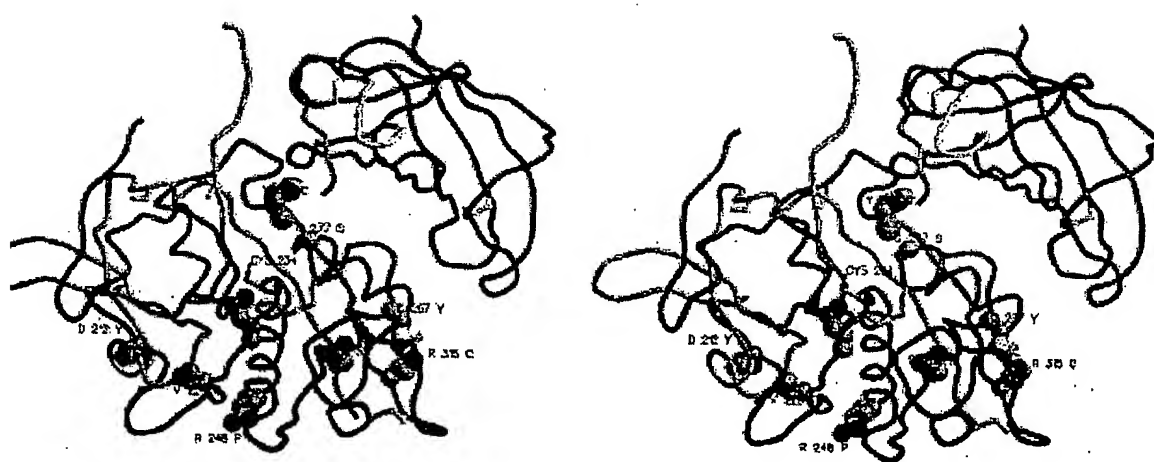


Fig. 14

Fig. 14

20/21

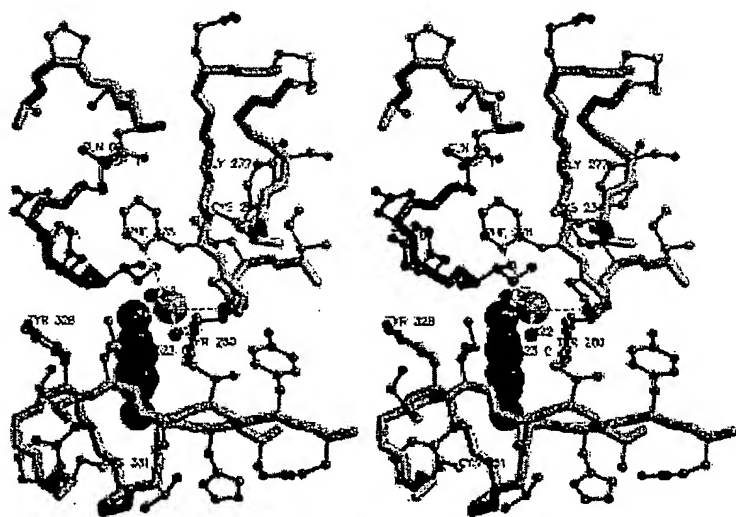


Fig. 14 (continued)

Fig. 14 (continued)

21/21

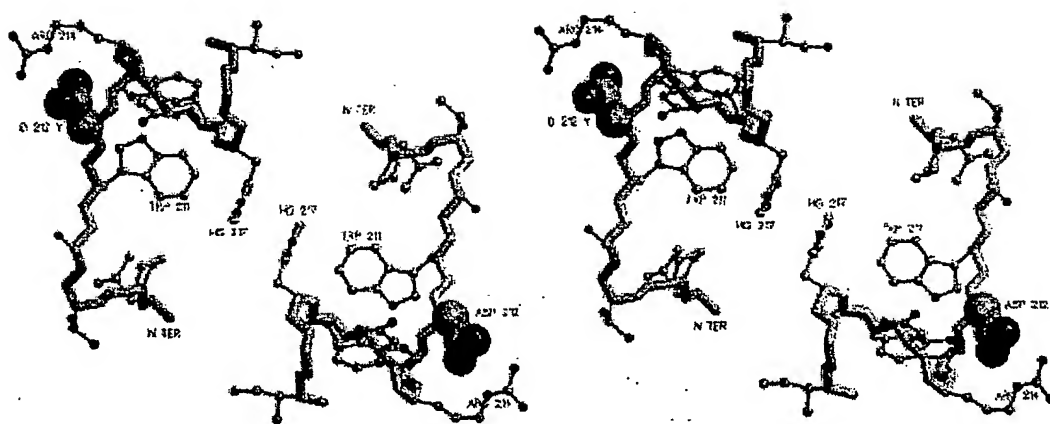


Fig. 14 (continued)

Fig. 14 (continued)

SEQUENCE LISTING

<110> PROZYMEX A/S

<120> Dipeptidyl peptidase I crystal structure
and its uses

<130> 23099PC1

<150> PA2000001343

<151> 2000-09-08

<160> 2

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 462

<212> PRT

<213> rattus norvegicus

<400> 1

Met	Gly	Pro	Trp	Thr	His	Ser	Leu	Arg	Ala	Ala	Leu	Leu	Leu	Val	Leu	1	5	10	15
Leu	Gly	Val	Cys	Thr	Val	Ser	Ser	Asp	Thr	Pro	Ala	Asn	Cys	Thr	Tyr	20	25	30	
Pro	Asp	Leu	Leu	Gly	Thr	Trp	Val	Phe	Gln	Val	Gly	Pro	Arg	His	Pro	35	40	45	
Arg	Ser	His	Ile	Asn	Cys	Ser	Val	Met	Glu	Pro	Thr	Glu	Glu	Lys	Val	50	55	60	
Val	Ile	His	Leu	Lys	Lys	Leu	Asp	Thr	Ala	Tyr	Asp	Glu	Val	Gly	Asn	65	70	75	80
Ser	Gly	Tyr	Phe	Thr	Leu	Ile	Tyr	Asn	Gln	Gly	Phe	Glu	Ile	Val	Leu	85	90	95	
Asn	Asp	Tyr	Lys	Trp	Phe	Ala	Phe	Phe	Lys	Tyr	Glu	Val	Lys	Gly	Ser	100	105	110	
Arg	Ala	Ile	Ser	Tyr	Cys	His	Glu	Thr	Met	Thr	Gly	Trp	Val	His	Asp	115	120	125	
Val	Leu	Gly	Arg	Asn	Trp	Ala	Cys	Phe	Val	Gly	Lys	Lys	Met	Ala	Asn	130	135	140	
His	Ser	Glu	Lys	Val	Tyr	Val	Asn	Val	Ala	His	Leu	Gly	Gly	Leu	Gln	145	150	155	160
Glu	Lys	Tyr	Ser	Glu	Arg	Leu	Tyr	Ser	His	Asn	His	Asn	Phe	Val	Lys	165	170	175	
Ala	Ile	Asn	Ser	Val	Gln	Lys	Ser	Trp	Thr	Ala	Thr	Thr	Tyr	Glu	Glu	180	185	190	
Tyr	Glu	Lys	Leu	Ser	Ile	Arg	Asp	Leu	Ile	Arg	Arg	Ser	Gly	His	Ser	195	200	205	
Gly	Arg	Ile	Leu	Arg	Pro	Lys	Pro	Ala	Pro	Ile	Thr	Asp	Glu	Ile	Gln	210	215	220	
Gln	Gln	Ile	Leu	Ser	Leu	Pro	Glu	Ser	Trp	Asp	Trp	Arg	Asn	Val	Arg	225	230	235	240
Gly	Ile	Asn	Phe	Val	Ser	Pro	Val	Arg	Asn	Gln	Glu	Ser	Cys	Gly	Ser	245	250	255	
Cys	Tyr	Ser	Phe	Ala	Ser	Leu	Gly	Met	Leu	Glu	Ala	Arg	Ile	Arg	Ile	260	265	270	
Leu	Thr	Asn	Asn	Ser	Gln	Thr	Pro	Ile	Leu	Ser	Pro	Gln	Glu	Val	Val	275	280	285	

Ser Cys Ser Pro Tyr Ala Gln Gly Cys Asp Gly Gly Phe Pro Tyr Leu
 290 295 300
 Ile Ala Gly Lys Tyr Ala Gln Asp Phe Gly Val Val Glu Glu Asn Cys
 305 310 315 320
 Phe Pro Tyr Thr Ala Thr Asp Ala Pro Cys Lys Pro Lys Glu Asn Cys
 325 330 335
 Leu Arg Tyr Tyr Ser Ser Glu Tyr Tyr Val Gly Gly Phe Tyr Gly
 340 345 350
 Gly Cys Asn Glu Ala Leu Met Lys Leu Glu Leu Val Lys His Gly Pro
 355 360 365
 Met Ala Val Ala Phe Glu Val His Asp Asp Phe Leu His Tyr His Ser
 370 375 380
 Gly Ile Tyr His His Thr Gly Leu Ser Asp Pro Phe Asn Pro Phe Glu
 385 390 395 400
 Leu Thr Asn His Ala Val Leu Leu Val Gly Tyr Gly Lys Asp Pro Val
 405 410 415
 Thr Gly Leu Asp Tyr Trp Ile Val Lys Asn Ser Trp Gly Ser Gln Trp
 420 425 430
 Gly Glu Ser Gly Tyr Phe Arg Ile Arg Arg Gly Thr Asp Glu Cys Ala
 435 440 445
 Ile Glu Ser Ile Ala Met Ala Ala Ile Pro Ile Pro Lys Leu
 450 455 460

<210> 2

<211> 1850

<212> DNA

<213> rattus norvegicus

<400> 2

gaattccggt tctagttggt gttttctctg ccatctgctc tccgggcgcc gtcaaccatg 60
 ggtccgtgga cccactcctt gcgcgcgcgc ctgctgctgg tgcttttggg agtctgcacc 120
 gtgagctccg acactcctgc caactgcact taccctgacc tgctgggtac ctgggttttc 180
 caggtgggcc ctagacatcc ccgaagtcac attaaactgct cggtaatgga accaacagaa 240
 gaaaaggtag tgatacacct gaagaagttg gatactgcct atgatgaagt gggcaattct 300
 gggatattca ccctcattta caaccaaggc ttgagattg tgttgatga ctacaagtgg 360
 tttgcgtttt tcaagtatga agtcaaaggc agcagagcca tcagttactg ccatgagacc 420
 atgacagggt ggggtccatga tgcctgggc cggaactggg cttgctttgt tggcaagaag 480
 atggcaaatc actctgagaa ggtttatgtg aatgtggcac acctggagg tctccaggaa 540
 aaatattctg aaaggctcta cagtcacaac cacaactttg tgaaggccat caattctgtt 600
 cagaagtctt ggactgcaac cacctatgaa gaatatgaga aactgagcat acgagatttg 660
 ataaggagaa gtggccacag cggaaggatc ctaaggccca aacctgcccc gataactgat 720
 gaaatacagc aacaaatttt aagtttgcca gaatcttggg actggagaaa cgtccgtggc 780
 atcaattttg ttagccctgt tcgaaaccaa gaatcttgtg gaagctgcta ctcatgtgcc 840
 tctctgggta tgctagaagc aagaattcgt atattaacca acaattctca gacccaatc 900
 ctgagtcctc aggagggtgt atcttgtagc ccgtatgcc aagggtgtga tgggtgattc 960
 ccatacctca ttgcaggaaa gtatgcccaa gattttgggg tgggtgaaga aaactgcttt 1020
 ccctacacag ccacagatgc tccatgcaaa ccaaaggaaa actgcctccg ttactattct 1080
 tctgagtact actatgtggg tggtttctat ggtggctgca atgaagccct gatgaagctt 1140
 gagctggtca aacacggacc catggcagtt gcctttgaag tccacgatga cttcctgcac 1200
 taccacagtg ggaatctacca ccacactgga ctgagcgacc ctttcaacc ctttagctg 1260
 accaatcatg ctgttctgct tgtgggctat ggaaaagatc cagtcaactg gttagactac 1320
 tggattgtca agaacagctg gggctctcaa tggggtgaga gtggctactt ccggatccgc 1380
 agagggaactg atgaatgtgc aattgagagt atagccatgg cagccatacc gattcctaaa 1440
 ttgtaggacc tagctcccag tgtcccatac agctttttat tattcacagg gtgatttagt 1500
 cacaggctgg agacttttac aaagcaatat cagaagctta ccactaggta cccttaaaga 1560
 attttgccct taagtttaaa acaatccttg atttttttct tttaatatcc tccctatcaa 1620
 tcaccgaact actttttctt ttaaagtact tggtaaagta atacttttct gaggattggg 1680
 tagatattgt caaatatttt tgctggtcac ctaaaatgca gccagatgtt tcattgttaa 1740

```
aaatctatat aaaagtgcaa gctgcctttt ttaaattaca taaatcccat gaatacatgg 1800
ccaaaatagt tatttttttaa agactttaaa ataaatgatt aatcgatgct      1850
```

INTERNATIONAL SEARCH REPORT

International Application No

PCT/DK 01/00580

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 C12N15/57 C07K1/14 A61P11/00 C12Q1/68 C07K14/435
 A61P31/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07K C12Q C12N A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>WO 97 35983 A (THOMAS DIDIER RENE PHILIPPE ;JEPSON IAN (GB); ZENECA LTD (GB); GRE) 2 October 1997 (1997-10-02) SEQ. ID. No.51(EMBL,EBI: EPOP A65328) is 42% identical to SEQ. ID. No.1 in a 255 aa overlap SEQ. ID. No.50(EMBL,EBI: EPOP A65327) is 38% identical to SEQ. ID. No.1 in a 230 aa overlap SEQ. ID. No.49(EMBL,EBI: EPOP A65326) is 42% identical to SEQ. ID. No.1 in a 225 aa overlap figure 9</p> <p style="text-align: center;">--- -/-</p>	1

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"g" document member of the same patent family

Date of the actual completion of the international search

14 January 2002

Date of mailing of the international search report

25. 02. 2002

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
 NL - 2280 HV Rijswijk
 Tel. (+31-70) 340-2040, Tx. 31 651-epo nl,
 Fax: (+31-70) 340-3018

Authorized officer

Fernando Farieta

INTERNATIONAL SEARCH REPORT

In International Application No

PCT/DK 01/00580

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 97 17452 A (BRENNAN REX MICHAEL ;SMITHKLINE BEECHAM PLC (GB); TAYLOR MARK ANDR) 15 May 1997 (1997-05-15) SEQ. ID. No.8 (EMBL,EBI: EPOP: A62723) is 41% identical to SEQ. ID. No.1 in a 206 aa overlap ---	1
X	WO 99 51264 A (COOMBS GRAHAM HERBERT ;UNIV GLASGOW (GB); MOTTAM JEREMY CHARLES ()) 14 October 1999 (1999-10-14) SEQ. ID. No.5 (EMBL EBI: EPOP AX015604) is 39% identical to SEQ. ID. No.1 in a 442 aa overlap figure 8B ---	1
X	BUTLER R ET AL: "Sequence of schistosoma mansoni cathepsin C and its structural comparison with papain and cathepsins B and L of the parasite." PROTEIN AND PEPTIDE LETTERS, vol. 2, no. 2, 1995, pages 313-320, XP002902235 page 316 ---	1-35
Y	US 5 637 462 A (COLEMAN ROGER ET AL) 10 June 1997 (1997-06-10) column 15, line 58 - line 67 column 16, line 4 - line 10 partially claims	1-47, 51-55, 69-73
Y	---	57-61,74
Y	WO 97 15588 A (AZZO ALESSANDRA D ;RUDENKO GABRIELLE (US); HOL WIM G J (US)) 1 May 1997 (1997-05-01) claims 1-18 partially claims	1-47, 51-55, 69-73
Y	---	57-61,74
P,A	WO 01 07663 A (HART THOMAS C ;UNIV WAKE FOREST (US)) 1 February 2001 (2001-02-01) claims 1-41 partially claims	1-47, 51-55, 69-73
P,A	---	57-61,74
E	US 6 297 277 B1 (ZIMMERMAN M P ET AL) 2 October 2001 (2001-10-02) claims 1-12 partially claims	36-47, 51-55, 69-73
A	---	57-61,74

	-/--	

INTERNATIONAL SEARCH REPORT

International Application No

PCT/DK 01/00580

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	DHAR S C ET AL: "Purification, crystallisation and properties of cathepsin C from beef spleen" LEATHER SCIENCE, vol. 11, no. 8, August 1964 (1964-08), pages 309-320, XP002902236 the whole document	1-47, 51-55, 69-73
A	partially claims	57-61,74
A	--- KAZUMI ISHIDOH ET AL : "Molecular cloning of cDNA for rat cathepsin C" THE JOURNAL OF BIOLOGICAL CHEMISTRY, vol. 266, no. 25, 1991, pages 16312-16317, XP002902237 the whole document -----	1-35

INTERNATIONAL SEARCH REPORT

International application No.
PCT/DK 01/00580

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 62-68
because they relate to subject matter not required to be searched by this Authority, namely:
see FURTHER INFORMATION sheet PCT/ISA/210
2. ☒ Claims Nos.: 48-50, 56 and partially 57-61,74
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.1

Claims Nos.: 62-68

Claims 62-68 relate to methods of treatment of the human or animal body by surgery or by therapy/diagnostic methods practised on the human or animal body / Rule 39.1.(iv). Nevertheless, a search has been executed for these claims. The search has been based on the alleged effects of the compounds/compositions.

Continuation of Box I.2

Claims Nos.: 48-50, 56 and partially 57-61,74

Patent claims taken singly as well as in totality, must be clear and concise in order to enable potential users to ascertain, without undue burden, the scope of protection. Due to the unreasonable large number of claims in the present application it would involve an undue burden to the public to reveal the scope of protection. Therefore, claims 48-50, 56 and partially 57-61,74 do not fulfil the requirements of clarity and conciseness according to PCT Rule 6.1 (a) and Article 6.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ BLACK BORDERS
- ☐ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
- ☒ FADED TEXT OR DRAWING
- ☐ BLURRED OR ILLEGIBLE TEXT OR DRAWING
- ☐ SKEWED/SLANTED IMAGES
- ☒ COLOR OR BLACK AND WHITE PHOTOGRAPHS
- ☐ GRAY SCALE DOCUMENTS
- ☒ LINES OR MARKS ON ORIGINAL DOCUMENT
- ☐ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY
- ☐ OTHER: _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.